

# Scope Specs Table

## LIGHT Scopes

**Bottom Magnification = at least 6x or lower**

**Top Magnification = at least 9x**

**with 10y Parallax**

**Exposed Turrets**

**Holdoff Reticle**

**Almost all under \$500 (most are between \$200-300)**

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### **Requirements for this Table** (few exceptions are included)

Bottom magnification = at least 6x or lower

Top magnification = at least 9x or higher

Minimum parallax = 10 yards or less (a few exceptions with 15y)

Turrets = exposed; however, some scopes with capped turrets that check many other boxes are included

Side parallax adjustment (almost all)

Reticle = Holdoff reticle (evenly spaced hash lines or dots for aiming with holdoff/ holdover; some exceptions are listed due to their exceptionally light weight or short size)

Price = usually between \$200 and \$500 (most are between \$200 and \$300); some are a bit more expensive as they have all around very good specs

### **3 Magnification Sections of the Table**

**Section 1:** 3-12x | 3-9x |

Weight: 22.1oz = 625g or less

**Section 2:** 4-20x | 4-16x | 4-14x | 3-18x | 3-15x | 3-16x | 2-16x |

Weight: 25.6oz = 726g or less

**Section 3:** 6-24x | 5-20x | and all over 20x top end magnification, with at least 6x or less on the bottom: 4-24x | 5-30x

Weight: 28.6oz = 811g or less

### **Abbreviations in the Table**

**Green** is a good thing... – e.g.: a very good warranty, a shorter size or lighter weight than average for this magnification range, a larger than average elevation adjustment range, a very wide field of view (FoV), or some additional feature (bubble level, zero stop, turret turn counter, numbers on the hash lines of the reticle), etc.

**Red** is less of a good thing... – e.g.: a not so great warranty, a longer size or heavier weight than average, a smaller than average elevation adjustment range, a very narrow field of view (FoV), or some other negative or limiting feature, like: a small exit pupil (reducing the eye box), a min. parallax longer than 10y, a reticle without illumination, capped turrets, an FFP reticle without thick outside posts, or a price higher than the max. price that was set for this scope table), etc.

**Purple** is something noteworthy that could be either good or bad, depending on the shooting scenario... – e.g.: an objective lens that is exceptionally small or large for its magnification (e.g., a small lens allows less light to enter, and reduces the need to focus to correct parallax errors), or an exceptionally short or long eye relief (affecting the scope mounting location and eye/head placement), etc.

**Orange** is a caution flag, a marginal feature or characteristic... – e.g.: warranty limitations, a marginal FoV, a smaller objective diameter for (supposedly) less light than average for the magnification range, an uneven number of mils or moas per turret turn (not multiples of 5mil or 10moa), a 34mm tube (somewhat limiting scope mount choices), a price so low as to shed doubt on the quality of the scope, etc.

**SFP** vs. **FFP** = table starts with **SFP** (*second focal plane*) scopes, then *first focal plane* (**FFP**)  
**Thick O/S Posts** [for **FFP**] = thick black outside posts, i.e., 3 or 4 of the crosshairs are thick toward the outside (the posts are not hollow rectangles, but filled in with black), which allows seeing the crosshairs easily even when at low magnification. Some have no thick posts, and some have *semi thick* posts.

**10x** [or 16x, or another number] [for **SFP**] = the magnification at which the holdoff hash lines or dots have been calibrated, i.e., where 1 moa indicated on the reticle actually is 1.047" in reality at 100 yards

**Series and Part No.** = the manufacturer's product or parts number; helpful to identify the scope at a seller's page as some scopes are very similar and the seller's description is either misleading or insufficient to identify the scope with certainty; also for shopping for the lowest price it helps to enter the number in the search

**Discont.** = product has been discontinued (but still could be purchased used)

**Warranty Info:** **Life** = life time warranty | **5y** = 5 years warranty | **OOwn** = warranty only for the original owner | **Unlmt** = unlimited warranty | **Anyb.** = warranty applies to any owner, anybody (e.g., even if you bought it used) | **NoRec.** = no receipt (proof of purchase) required | **Rec.** [or: **R.**] = receipt (proof of purchase) required | **30d** = must register the scope within 30 days of purchase

**FoV** = Field of View (in ft at 100y):

- **FoV @ bottom magnification:**

A large FoV at the bottom end of the magnification range is important for *hurried close range shooting*, as the large FoV helps rapid target acquisition. Note that a wide FoV is not critical for *unhurried shooting*, i.e., shooting on stationary targets (or quarry that isn't skittish and gives the shooter time to set up the shot).

The color coding in the table is based on my very personal, unabashedly subjective estimation: *For my kind of hurried close range shooting* I'd like to have a FoV of at least around 3ft at 10y (1m at 10m) (which translates to around 30ft @100y, as FoV is usually reported at 100y; it is color coded black).

The color coding at the bottom end of the mangification is applied irrespective of the scope's magnification, so naturally 6-24x scopes for example don't usually get a green

rating, but orange or red. Note however that there are sometimes huge differences in FoV between scopes with the same magnification range which makes the bottom end magnification an unreliable indicator of FoV when scope shopping.

<b>41ft or more</b>	<b>40-35ft</b>	<b>34-28ft</b>	<b>27-22ft</b>	<b>21-17ft</b>	<b>16ft or less</b>
<b>7.8° or more</b>	<b>7.7-6.7°</b>	<b>6.6-5.3°</b>	<b>5.2-4.1°</b>	<b>4.0-3.2°</b>	<b>3.1° or less</b>

• *FoV @ top magnification:*

Between two scopes with the same top end magnification the one with a larger FoV is preferable, all other things being equal. This is because the larger FoV might allow to see more clues to how the wind is behaving, or allows to see additional quarry, or makes following the quarry easier if it decides to move. The color coding in the table is based on what is typical for this magnification, i.e., what I have observed to be average for this top magnification.

Examples: At 16x a FoV of 6.3ft normal, whereas a FoV of **4.7ft** is rather narrow and limited. A FoV of **8.5ft** would be great.

Color Coding for the Evaluation of FoV at the Top End Magnification																															
Magnification	1					7	8	9	10	11	12	13	14	15	16	18	20	22	24	26	28	30	32								
Magnification	<b>1</b>						<b>8</b>								<b>16</b>									<b>32</b>						<b>64</b>	
"times life size"	<b>1x</b>						<b>7x</b>	<b>8x</b>	<b>9x</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>18</b>	<b>20</b>	<b>22</b>	<b>24</b>	<b>26</b>	<b>28</b>	<b>30</b>	<b>32</b>	<b>39</b>	<b>46</b>	<b>53</b>	<b>60</b>	<b>64</b>		
Evaluation of Field of View (FoV): Top End* FoV @ 100y																															
FoV in ft	from worst to best					ft			ft			ft			ft		ft		ft		ft										
red bold	red/orange gets this evaluation if the value is as indicated or worse					<b>8.5</b>	<b>8</b>	<b>7.5</b>	<b>6</b>	<b>5</b>	<b>4.6</b>	<b>4.2</b>	<b>4.0</b>	<b>3.9</b>	<b>3.7</b>		<b>2.8</b>	<b>2.8</b>													
red						<b>9.5</b>	<b>9</b>	<b>8.5</b>	<b>7</b>	<b>5.8</b>	<b>5.2</b>	<b>4.7</b>	<b>4.5</b>	<b>4.4</b>	<b>4.1</b>		<b>3.2</b>	<b>3.2</b>													
orange						<b>10</b>	<b>10</b>	<b>9.5</b>	<b>8</b>	<b>6.5</b>	<b>5.9</b>	<b>5.4</b>	<b>5.2</b>	<b>4.9</b>	<b>4.5</b>		<b>3.6</b>	<b>3.6</b>													
Typical Value		color black				<b>13</b>	<b>12</b>	<b>11</b>	<b>9</b>	<b>8</b>	<b>7.1</b>	<b>6.3</b>	<b>5.9</b>	<b>5.5</b>	<b>4.9</b>		<b>4</b>	<b>4</b>													
green	green gets this evaluation if the value is as indicated or better					<b>15</b>	<b>14</b>	<b>13</b>	<b>12</b>	<b>11</b>	<b>10</b>	<b>9</b>	<b>8</b>	<b>7.2</b>	<b>6.7</b>	<b>6.2</b>	<b>5.3</b>		<b>4.1</b>	<b>4.1</b>											
green bold						<b>17</b>	<b>17</b>	<b>15</b>	<b>13</b>	<b>10</b>	<b>9</b>	<b>8</b>	<b>7.3</b>	<b>6.5</b>	<b>7.7</b>	<b>7</b>	<b>5.7</b>		<b>4.4</b>	<b>4.4</b>											
Magnification	1					7	8	9	10	11	12	13	14	15	16	18	20	22	24	26	28	30	32								

*IR* = illuminated reticle [Y = yes | NO]

*Reticle; Ret.* D = "dots" = enough dots or hash lines on the crosshairs for holdoffs for elevation and windage

N = "numbers" = the dots or hash lines are numbered for quicker holdoffs

*Grid* = the reticle is a grid style ("Christmas tree style"): for some shooters and for scope cams it "clutters" the reticle, but it allows for more precise elevation and windage holdoffs simultaneously

*BDC* = bullet drop compensating reticle, meaning that the spacing between the hash lines is uneven and therefore not usable for holdoffs unless shooting the ammo the reticle was calibrated for

*Capped Turrets!* BUT *Clickable* = means that though the turrets are capped, when uncapped they are finger adjustable, the numbers are visible from behind the rifle, and the zero can be reset

*Hawke scopes: Careful* when purchasing them, new or used. Hawke has the annoying habit of coming out with new scope models but fails to either add the designation "Gen. 2" or to give them a new series name. In addition they have the habit of adding a couple of innocuous letters or numbers to the name of the scope – which mean massive changes in the features or the performance. These letters or numbers are easy to miss for both the

buyers and commercial and private sellers. To assure you are getting the scope with the features you are thinking you are getting, check that the manufacturer's model number is the correct one. The Scope Specs Table notes the numbers for most scope models for that very reason.

#### Prices

##### In US dollars

*Price Low* = lowest street prices in US dollars I found in 2019 – and updated according to the list below. An additional price is separated by a *comma*,

*Price Mfctr.'s* = manufacturer's price [last price in that field, after the semicolon ; ]

### A Little Caution When Using Short Scopes

Short scopes have short tubes. That means:

- Less flexibility of where to put scope rings, especially if the magazine of a PCP sticks up between a two-part scope rail.
- Less flexibility of where to put a voluminous scope ring (like the Burris XTR; those rings can obstruct your view of the turret settings if it is mounted smack next to the turret).
- Less space to mount anything else on the scope tube: bubble level, flashlight holder, IR gear, etc.

### Considerations On Using a Scope Cam

- Depending on the scope cam a *short or very short eye relief* probably will not work!
- A *gridded reticle* will clutter the view.
- An *illumination dial on the ocular lens* (instead of the parallax turret) will obstruct most scope cams that are mounted with a sleeve over the ocular lens.
- *Very short scopes* might make mounting of certain scope cams a bit more complicated.
- A *larger objective lens* allows more light into the system, which is needed as the prism of the scope cam mount diverts a percentage of the light to the camera, and lets another percentage through to the shooter's eye. Even more light is needed when filming with a high frame-per-second rate ("fps") to permit slow-motion playback later.
- Of course, higher quality glass will also permit more light into the system, without the need for a larger objective lens. A large objective lens will decrease the DoF (depth of field) – what I call the *sharpness and parallax range (SPR)* – the range at which a target is in focus and parallax is dialed out. A longer SPR (or DoF) will require less precise parallax adjustments (esp. for quick shots when hunting!) – and for that reason will be less precise for parallax ranging.

## Section 1:

**3-12x | 3-9x | 3x or lower on the bottom end, at least 9x on the top**  
**Weight: 22.1oz = 625g or less**

			Magni. → FoV → Eye Box	Exposed Turrets					Holdoff Reticle			Dimensions			Misc. + Reviewers' "Comments"				
				Sprin- ger- Rated	Magni- fication	FoV @ 100y (ft)	Obj. Dia (mm)	Exit Pupil (mm)	IR Y/ N	Max Elev (MOA)	1 Click =	1 T. Turn =	Turrets in:	Reticle in:	FFP SFP Calibration at?	Enough Dots, No's, Grid Center Dot	Line Thick- ness	1" or 30mm Tube	Weight (oz) (g)
*in 2019, some 2020, 2021, 2022, 2023 Brand: Series Part No.	Price*: Low; Mfcfr.'s in US \$	Warranty																	
<b>SFP Scopes</b>																			
MTC: Viper Connect •SCB2 Ret.	400; –	Life <sup>30d</sup> R00wn	No	<b>3-12x</b>	<b>61-17 super wide</b>	<b>24</b>	8- calculated	Y	<b>120</b>	1/4 inch	<b>12</b>	<b>SVOA</b> = MOA	<b>SFP</b> ?x	D	?	30	21.2 600g	11.3" 29c	▲Super ShortEye Relief 1.2" (3cm)
UTG: Accushot OP3: •MOA Ret. No. OP3-GM3124UMOA	198; 240	Life	Yes!!	<b>3-12x</b>	32-10	44	13- 3.9	Y	??	1/4 moa	24	MOA= MOA	<b>SFP</b> 10x	D, N	?	30	21.0 595g	10.1" 26c	Locking Turrets
UTG: Bugbuster •No. SCP-M312AOQ = w/ Picatinny r. •No. SCP-M312AOD = w/ Dovetail r.	125; 130	Life	Yes!!	<b>3-12x</b>	31-10	32	10- 2.7	NO ??	1/3"v inch	24	SVOA≠ MIL	<b>SFP</b> 10x	D	?	1"	12.7 360g	8.1" 21c	Min. Parallax: 3y Wire reticle	
UTG: Bugbuster No. SCP-M312AOQ = w/ Dovetail rings	110; 125	Life	Yes!!	<b>3-9x</b>	37-12	32	10- 3.6	NO ??	1/3"v inch	24	SVOA≠ MIL	<b>SFP</b> 9x	D	?	1"	12.0 340g	7.9" 20c	Min. Parallax: 3y Wire reticle	
UTG: Bugbuster •No. SCP-M392AOQ = red-green-blue IR + Picatinny rings   Right side turret is IR! •No. SCP-M392AOLWQ = 36-color IR + Picatinny rings	79; 108	Life	Yes!!	<b>3-9x</b>	38-14	32	10- 3.6	Y	??	1/4"v inch	18	SVOA≠ MIL	<b>SFP</b> 9x	D	?	1"	14.0 397g	8.2" 21c	Min. Parallax: 3y ▲Front Parallax! Wire reticle
Optisan: HX 4-12x40AO •MH12 Ret. Code 37559 •EMD12 Ret. Code 37522	?; ?; 270, 200	Life	Yes	<b>4-12x</b>	<b>34-11</b>	40	10- 3.3	NO 40	1/4 moa	12	MOA≠ MIL	<b>SFP</b> 12x	D, mini Grid.		1"	17.6 500g	13" 33c	Capped Turrets! BUT Clickable Front Parallax AO	
Optisan: CP 3-12x32P SFP. Minimized Parallax.	329; 359	Life	Yes!!	<b>3-12x</b>	<b>36-9</b>	<b>32</b>	10- 2.6	NO 66	0.1 mil	10	MIL= MIL	<b>SFP</b> 10x	D, mini Grid	0.05 <sup>mi</sup> 0.17 <sup>mo</sup>	30	17.2 487g	9.5" 24c	Capped Turrets! BUT Clickable	
Optisan: CP 4-16x40 Minimized Parallax.	340; 390	Life	Yes!!	<b>4-16x</b>	<b>26<sup>2</sup>- 6.5</b>	<b>40</b>	10- 2.5	NO 62	0.1 mil	10?	MIL= MIL	<b>SFP</b> 10x	D, mini Grid	0.05 <sup>mi</sup> 0.17 <sup>mo</sup>	30	18.7 530g	10.6" 27c	Capped Turrets! BUT Clickable	
Athlon: Talos Mildot No. 215004	150; 180	Life, NoRec	?	<b>3-12x</b>	34-9	40	13- 3.4	NO 67	0.1 mil	6 mil	MIL= MIL	<b>SFP</b> ?x	D	0.05 <sup>mi</sup> 0.17 <sup>mo</sup>	1"	16.2 459g	12.0" 30c	Capped Turrets! BUT Clickable TT Turn Counter	
Bushnell: Engage No. REN21044DG	250; 343	Life, NoRec.	?	<b>2.5-10x45-11</b>	<b>44</b>	17- 4.4	NO 50	1/4 moa	15	MOA= MOA	<b>SFP</b> ?x	D		30	19.3 547g	13.5" 35c			
Bushnell: Engage No. REN31242DG	243; 328	Life, NoRec	?	<b>3-12x</b>	<b>30-6</b>	42	?	NO 50	1/4 moa	15	MOA= MOA	<b>SFP</b> ?x	D		30	19.5 553g	14.0" 36c		
MTC: Copperhead F2 [SFP]	427; ?	Life <sup>30d</sup> R00wn	?	<b>3-12x</b>	<b>32-8</b>	44	?	Y	<b>40</b>	0.1 mil	6 mil	MIL= MIL	<b>SFP</b> 10x	D, N, Wind. 1mil!!	?	30	20.0 568g	9.8" 25c	Locking Turrets Eye Relief: 9cm
Vector: Veyron SFP No. SCOM-24	169; ?	<b>5y</b>	Yes!!	<b>3-12x</b>	<b>35-9</b>	44	14- 3.6	NO 58	0.1 mil	6 mil	MIL= MIL	<b>SFP</b> 12x	D	0.025 <sup>mi</sup> 0.08 <sup>mo</sup>	30	17.6 500g	9.7" 25c	Eye Relief: 9.0-8.5cm	
Hawke: Airmax 30 Touch No. 13260	370; 450	Life, R. 00wn	Yes!!	<b>3-12x</b>	<b>64-18 super wide!</b>	<b>32</b>	10- 2.7	Y	<b>250!</b>	0.1 mil	6 mil	MIL= MIL	<b>SFP</b> 10x with a click at 10x	D	?	30	20.2 572g	10.5" 27c	Capped Turrets BUT Large for Clicking! T Turn Counter ▲Super ShortEye Relief 1.2" (3cm)
Hawke: Airmax 30 SF Compact No. 13200	380; 419	Life, R. 00wn	Yes!!	<b>3-12x</b>	<b>44-11</b>	40		Y	<b>100</b>	0.1 mil	6 mil	MIL= MIL	<b>SFP</b> 10x	D	?	30	20.8 589g	10.9" 28c	Capped Turrets BUT Large for Clicking! T Turn Counter
<b>FFP Scopes – without Thick Outside Posts in the Reticle</b>																			
Vector: Veyron FFP No. SCFF-21	174; ?	<b>5y</b>	Yes	<b>3-12x</b>	<b>35-9</b>	44	14- 3.6	NO 58	0.1 mil	6 mil	MIL= MIL	<b>FFP<sup>2</sup></b> No Thick Posts	D	0.025 <sup>mi</sup> 0.08 <sup>mo</sup>	30	17.6 499g	9.7" 25c	Locking Turrets Eye Relief: 9.0-8.5cm	

				Magni.	→ FoV	→ Eye Box	Exposed Turrets				Holdoff Reticle				Dimensions					
*in 2019, some 2020, 2021, 2022, 2023 Brand: Series Part No.	Price*: Low; Mfctr.'s in US \$	Warranty	Spirn-ger-Rated	Magnification	FoV = Field of View @ 100y (ft)	Obj. Dia (mm)	Exit Pupil (mm)	IR Y/N	Max. Elev. Adm. (MOA)	1 Click =	1 T. Turn =	Turrets in:	Reticle in:	FFP Thick O/S Posts? — SFP Calibration at?	Enough Dots, No's, Grid CD Center Dot	Line Thickness	1" or 30mm Tube	Weight (oz) (g)	Length (inch) (cm)	Misc. + Reviewers' "Comments"
<b>FFP Scopes – with Thick Outside Posts in the Reticle</b>																				
UTG: Accushot Pro AS3 No. AS303FAZ	?; ?	Life	Yes!	3-9x	39-13	36	12-4.0	Y	100	1/4 moa	20 moa	MOA ≈ MOA	FFP Thick O/S Posts	D, N, CD	?	34	21.9 620g	9.4" 24c	Locking Turrets	
Discoveryopt: HD	160; 160	Life	Yes	2-12x	58-9 <sup>3</sup>	24	12-2.0 calculated	Y	120	0.1 mil	6 mil	MIL ≈ MIL	FFP Thick O/S Posts	D, N, CD	?	30	16.6 470g	8.5" 22c	Locking Turrets Min. Parallax 5y. Problem for scope cams and night vision?	
Discoveryopt: HD [formerly with gridded reticle, often not updated on webpages!]	180; 200	Life	Yes	3-12x	34.7-8	44	15-3.7	Y	80	0.1 mil	6 mil	MIL ≈ MIL	FFP Thick O/S Posts	D, N, CD	?	30	20.3 575g	9.6" 24c	Locking Turrets Eye Relief 9.2-8.8cm	
US Optics: TS-12X FFP •MHR MIL Hunting Ret. FFP [not Triplex!]	450; 595	Life, Anyb.	?	3-12x	30-8 Mine: 35ft	44	?	NO	100?	0.1 mil	6 mil	MIL ≈ MIL	FFP Semi Thick Posts	D, N	?	30	18.1 513g	9.6" 24c	Locking Turrets Eye Relief 9.1-7.6cm → However, this was not a problem for my Tactacam!	

## Section 2:

**4-20x | 4-16x | 4-14x | 3-18x | 3-15x | 3-16x | 2-16x**

**Weight: 25.6oz = 726g or less**

				Magni.	→ FoV	→ Eye Box	Exposed Turrets				Holdoff Reticle				Dimensions				
*in 2019, some 2020, 2021, 2022, 2023 Brand: Series Part No.	Price*: Low; Mfctr.'s in US \$	Warranty	Spirn-ger-Rated	Magnification	FoV = Field of View @ 100y (ft)	Obj. Dia (mm)	Exit Pupil (mm)	IR Y/N	Max. Elev. Adm. (MOA)	1 Click =	1 T. Turn =	Turrets in:	Reticle in:	FFP Thick O/S Posts? — SFP Calibration at?	Enough Dots, No's, Grid CD Center Dot	Line Diameter	Tube Dia- (oz) (g)	Weight Length (inch) (cm)	Misc. + Reviewers' "Comments"
<b>SFP Scopes</b>																			
UTG: Accushot T8 Tactical, •Ret. MOA No. SCP3-216GUMOA	178; 250	Life	Yes!!	2-16x	44-6	44	22-2.7	Y	??	1/4 inch	18 inch	SMA ≈ MOA	SFP 10x	D, N	?	30	22.6 641g	12.4" 32c	Locking Turrets
UTG: Accushot OP3 •Ret. MOA No. OP3-GM4164UMOA	?; 210	Life	Yes!!	4-16x	26-8	44	11-3.0	Y	??	1/4 mil	24 mil	MOA ≈ MOA	SFP 10x	D, N	?	30	21.5 610g	10.7" 27c	Locking Turrets
MTC: Copperhead F2 [SFP]	480; ?	Life <sup>30d</sup> R. Own	?	4-16x	24-6	44	?	Y	40	0.1 mil	6 mil	MIL ≈ MIL	SFP 10x	D 1mil Wind only, N	?	30	24.3 590g	10.8" 27c	Locking Turrets
Hawke: Airmax 30 SF Compact No. 13210	390; 429	Life, R. 0.own	Yes!!	4-16x	33-8	44	11-2.8	Y	67	0.1 mil	6 mil	MIL ≈ MIL	SFP 10x	D	?	30	21.9 621g	11.7" 30c	Capped Turrets BUT Large for Dialing! T Turn Counter
MTC: Viper Pro Tactical	590; -	Life <sup>30d</sup> R. 0.own	Yes (?)	3-18x	42-7 <sup>7</sup>	50	?	Y	73	1/4 mil	14 mil	MOA ≠ MIL	SFP x?	D	?	30	25.6 725g	14.8" 38c	not customizable, "low quality glass"
Sightron: S-TAC [SFPI] •Ret. MOA-3	450; 520	Life	Yes!!	3-16x	32-6	42	?	NO	70	1/4 mil	15 mil	MOA ≈ MOA	SFP 16x	D	.02 <sup>mi</sup> .08 <sup>mo</sup>	30	23.5 666g	12.9" 33c	Daling Turrets (capped w/ <sup>N1</sup> ) T Turn Counter
Bushnell: Engage	325; ?	Life, NoRec.		4-16x	28-7	44	?	NO	50	1/4 mil	15 mil	MOA ≈ MOA	SFP x?	D		30	20.1 570g	14.0" 36c	
Aztec: Emerald	400; ?	Life	Yes!!	3-18x	10-4 <sup>?</sup> Error in the Catalog	50	?	NO	222 (50MOA for 5.5-25x50)	1/4 mil	15 mil	MOA ≈ MOA	SFP 18x	D	?	30	24.3 690g	13.3" 34c	

			Magni. → FoV → Eye Box		Exposed Turrets					Holdoff Reticle			Dimensions							
*in 2019, some 2020, 2021, 2022, 2023 Brand: Series Part No.	Price*: Low; Mfctr.'s in US \$	Warranty	Spin-ger-Rated	Magnification	FoV = Field of View @ 100y (ft)	Obj. Dia (mm)	Exit Pupil (mm)	IR Y, N	Max. Adjmt. (MOA)	1 Click =	1 T. Turn =	Turrets in:	Reticle in:	FFP Thick O/S Posts? — SFP Calibration at?	Enough Dots, No's, Grid CD CenterDot	Line Thickness	Tube Diameter	Weight (oz) (g)	Length (inch) (cm)	Misc. + Reviewers' "Comments"
Optisan: EVX 4-16X44i • Ret. MIL-MH10X	391; 440	Life	?	4-16x	27-7	44	?	Y	50	0.1 mil	4.8!	MIL =	= MIL	SFP 10x	D, (N)	?	30	25.6 726g	14.3" 36c	T Revolution uneven 4.8 mil!
Sightron: S-TAC: [SFP!] • Ret. MOA	470; 540	Life		4-20x	24-4	50	?	NO	80 (40 wind age)	1/4 moa	15 moa	MOA =	= MOA	SFP x?	D	.03 <sup>mi</sup> .1 <sup>mo</sup>	30	23.8 675g	14.8" 38c	Dialing Turrets (capped w/ <sup>N1</sup> ) Turn Counter
Hawke: Sidewinder 30 SF No. 17140	459; 619	Life, R. 0.Own	Yes	45-14x	28-9	44	10-3.1	Y	95	0.1 mil	6 mil	MIL =	= MIL	SFP 10x	D, Grid	?	30	24.0 680g	13.3" 34c	T Turn Counter
Hawke: Sidewinder 30 SF No. 17250	469; 629	Life, R. 0.Own	Yes	4-16x	32-8	50	12-3.1	Y	90	0.1 mil	6 mil	MIL =	= MIL	SFP 10x	D, Grid	?	30	25.6 725g	13.3" 34c	T Turn Counter
Vector: Paragon Gen. 2 No. SCOM-25 SCOM-11 → <sup>No!</sup> Gen. 1 <sup>No!</sup>	?; 360	5y, Rec.	Yes	3-15x	37-8	50	8-3.3	Y	90	0.1 mil	8 mil	MIL =	= MIL	SFP 10x	D, N	?	30	22.0 625g	13.2" 34c	Locking Turrets
Vector: Paragon X5 1inch Zero Stop No. SCOM-T37 (not SCOM-37)	337; 449	Life		3-15x	37.2-7.7	44	10-2.9	Y	60	0.1 mil	10 mil	MIL =	= MIL	SFP 15x	D,mini-Grid, CD	.04 <sup>mi</sup> .15 <sup>mo</sup>	1"	25.0 710g	13.2" 34c	Locking Turrets; 0-Stop; Large Turrets
Hawke: Frontier SF • Mil Pro Ret. No. 18120	550; 609	Life, R. 0.Own	Yes	3-15x	37-7.5	44	15-2.9	Y	70	0.1 mil	8 mil	MIL =	= MIL	SFP 10x	D, N, Grid	?	1"	20.6 584g	13.2" 34c	3 screws to rezero; Locking Turrets; 0-Stop
Riton: 3 Conquer (or X3)	415; 560	Life, NoRec	Yes	3-15x	38-7.6	44	15-2.9	Y	85	1/4 moa	15 moa	MOA =	= MOA	SFP 15x	D, N, CD	?	30	25.4 720g	13.1" 33c	0-Stop; T Turn Counters
Hawke: Frontier 30 SF • Mil Pro Ret. No. 18421	819; 989	Life, R. 0.Own	Yes	25-15x	45-7	50	20-3.3	Y	107	0.1 mil	8 mil	MIL =	= MIL	SFP 10x	D, N, Grid	?	30	23.3 660g	14.8" 38c	Parallax 15y 0-Stop; 3 screws to rezero; Locking Turrets
Vector: Continental X8 ED Tactical No. SCOM-185	?; 649	Life		2-16x	61-7.7	44	6.5-2.8	Y	110	0.1 mil	8 mil	MIL =	= MIL	SFP 10x	D, N, Grid	?	30	23.8 675g	13.6" 35c	Parallax 14 or 10y (yes); 0-Stop Turn Counter; Locking Turrets
Element: Helix • Ret. APR-1C MRAD No. 50053 • Ret. APR-1C MOA No. 50054	589; ?	Life, NoRec.		2-16x	60-7.5	50	8.5-3.1	Y	100 wind 45moa	0.1mi 1/4mo	6mi 15mo	MIL =	= MIL	SFP 16x	D, N, CD	.03 <sup>mi</sup> ?	30	25.6 726g	13.4" 34c	Turn Counter; 0-Stop – limits the max. adjustment??
Vector: X6 Continental • Tactical Lock   No. SCOL-21T • ARI Tactical Lock   No. SCOL-53	?; 499	Life, NoRec.	?	3-18x	41-7	50	9-2.8	Y	70	0.1 mil	8 mil	MIL =	= MIL	SFP 10x	D, N, Grid	?	30	•23.8 675g •15.2" 39c(?) •25.0 710g •13.3" 34c	3 screws to rezero • Locking Turrets • 0-Stop; Large Turrets	
Hawke: Frontier SF • Mil Pro Ret. No. 18130	479; 629	Life, R. 0.Own	Yes	4-20x	28-6	44	11-2.2	Y	63	0.1 mil	8 mil	MIL =	= MIL	SFP 20x	D, N, Grid	?	1"	20.6 584g	13.2" 34c	3 screws; Locking Turrets; 0-Stop
<b>FFP Scopes – without Thick Outside Posts in the Reticle</b>																				
Vector: Veyron FFP No. SCFF-22	198; 259	5y	Yes	4-16x	26-6	44	11-2.7	NO	60	0.1 mil	6 mil	MIL =	= MIL	FFP <sup>17</sup> No Thick Posts	D	?	30	20.0 570g	10.6" 27c	Locking Turrets Eye Relief: 9.0-8.5cm
Sun Optics: FFP Variable Series No. CS41-41444	313; 563	1y	?	4-14x	27-8	44	11-3.2	NO	????	0.1 mil	????	MIL =	= MIL	FFP No Thick Posts	D, N	?	30	24.0 680g	14.0" 36c	Turrets a bit ugly!
Hawke: Sidewinder 30 FFP • FFP Half Mil Ret. No. 17450 • FFP MOA Ret. No. 17451	599; 799. 697; 799	Life, R. 0.Own	Yes	4-16x	32-8	50	13-3.1	Y	90	0.1mi 1/4mo	6mi 15mo	MIL =	= MIL	FFP No Thick Posts	D, Grid	?	30	25.6 725g	13.3" 34c	T Turn Counter

			Magni. → FoV		Eye Box		Exposed Turrets				Holdoff Reticle			Dimensions						
*in 2019, some 2020, 2021, 2022, 2023 Brand: Series Part No.	Price*: Low; Mfctr.'s in US \$	Warranty	Spin-ger-Rated	Magnification	FoV = Field of View @ 100y (ft)	Obj. Dia (mm)	Exit Pupil (mm)	IR Y, N	Max. Elev. Adjmt (MOA)	1 Click =	1 T. Turn =	Turrets in:	Reticle in:	FFP Thick O/S Posts? — SFP Calibration at ?	Enough Dots, No's, Grid, CD CenterDot	Line Thickness	Tube Diameter	Weight (oz) (g)	Length (inch) (cm)	Misc. + Reviewers' "Comments"
Hawke: Frontier 30 FFP • Mil Pro 20x Ret. <sup>No. 18530</sup>	950; 1200	Life, R. 0.0wn	Yes	4-20x	28 <sup>2</sup> -5.7	50	12-2.5	Y	80	0.1 mil	8 mil	MIL =	= MIL	FFP <sup>27</sup> No Thick Posts	D, N, Grid	?	30	22.2 630g	13.2" 34c	Parallax 15y 3 screws; Locking Turrets; 0-Stop
Hawke: Frontier 30 FFP • Mil Pro 15x Ret. <sup>No. 18520</sup>	900; 1150	Life, R. 0.0wn	Yes	3-15x	37.5-7.5	50	17-3.3	Y	90	0.1 mil	8 mil	MIL =	= MIL	FFP <sup>26</sup> No Thick Posts	D, N, Grid	?	30	22.2 630g	13.2" 34c	3 screws; Locking Turrets; 0-Stop

### FFP Scopes - with Thick Outside Posts in the Reticle

Nikko: Diamond FFP 30 • w/ PRR Reticle <sup>No. NSFP41644PRR</sup> • w/ Skeleton HMD Reticle <sup>No. NSFP41644HMD</sup>	275; ?	Life, 0.0wn	?	4-16x	27-7	44		Y	60	0.1 mil		MIL =	= MIL	FFP <sup>18</sup> O/S Posts: • Thick • Not Thick	D, N D, –	.05 <sup>mi</sup> .17 <sup>mo</sup>	30	21.9 620g	13.4" 34c	Locking Turrets	
Primary Arms (US): Silver Series SLx: • w/ R-Grid 2B Ret. <sup>No. 610090</sup> • w/ MIL-DOT Ret. <sup>No. 610091</sup> • w/ ARC-2-MOARet. <sup>No. 610089</sup>	280 Mfc 230 Mfc 250 Mfc	3y	?	4-14x	27 <sup>2</sup> -7.9	44	11-3.3	Y	60	0.1mi 0.1mi 1/4mo	6 mi 6 mi 12mo	MIL = MIL = MOA =	= MIL = MIL = MOA	FFP <sup>4</sup> O/S Posts: • Not Thick • Thick • Thick	D, N, Grid. D. (N)	?	30	25.2 714g	13.0" 33c	T Turn Counter	
Blackhound (US): 4-14x44 FFP	?; 300	Life, Anyb.	?	4-14x	27-8	44	?	Y	70	0.1mi 1/4mo	5 mi 15mo	MIL = MOA =	= MIL = MOA	FFP <sup>2</sup> Thick O/S Posts	D, N		30	25.6 726g	13.0" 33c	T Turn Counter	
Vector: Tourex <sup>No. SCFF-24</sup>	?; 260	5y, Rec.	?	4-16x	25-6	44	11-2.7	Y	60	0.1 mil	6 mil	MOA =	= MOA	FFP Thick O/S Posts	D, ~N	?	30	23.5 665g	14.0" 36c		
Nikko: Diamond FFP 34 • w/ PRR Reticle <sup>No. NSFP3441644</sup> • w/ Skeleton HMD Ret. <sup>No. NSFP3441644</sup>	320; ?	Life, 0.0wn	?	4-16x	27-7	44		Y	115	0.1 mil	6 mil	MIL =	= MIL	FFP <sup>18</sup> O/S Posts: • Thick • Not Thick	D, N D, –	.05 <sup>mi</sup> .17 <sup>mo</sup>	34	24.0 680g	13.4" 34c	Locking turrets	
Optisan: EVX 4-16X44F1 (MIL-F1MH16)	490; 550	Life	?	4-16x	27-7	44	11-2.7	NO	50	0.1 mil	5 mil	MIL =	= MIL	FFP <sup>19</sup> Thick O/S Posts	D, (N)		30	24.0 680g	14.2" 36c		
Athlon: Talos BTR <sup>No. 215028</sup>	290; 360	Life, NoRec.	Yes!!	4-14x	27-8	44	11-3.3	Y	67	0.1 mil	5 mil	MIL =	= MIL	FFP <sup>7</sup> Thick O/S Posts	D, N	.025 <sup>mi</sup> .08 <sup>mo</sup>	30	23.6 669g	12.9" 33c		
Primary Arms (US): Silver Series SLx: • w/ Apollo 6.5CM Reticle • w/ Athena BPR MIL Ret. • w/ Hera BPR MOA Ret.	?; 480	Life	?	3-18x	37-6	50	16-2.7	Y	50	0.1mi 0.1mi 1/4mo	7 mi 7 mi 18mo	MIL = MIL = MOA =	= MIL = MIL = MOA	FFP <sup>3</sup> Thick O/S Posts	D, N D, N, Grid	?	30	25.5 720g	13.2" 34c	Parallax 15y ✓ Locking Turrets	
Arken: EPL4 • MIL VHR Ret. • MOA VHR Ret.	350, 300; 400	Life		4-16x	30-7 <sup>5</sup>	44	?	Y	86	0.1mi 1/4mo	8 mi 20mo	MIL = MOA =	= MIL = MOA	FFP <sup>36</sup> Thick O/S Posts	D, N, CD	.03 <sup>mi</sup> .10 <sup>mo</sup>	30	23.7 672g	13.2" 34c	0-Stop; 3 screws to re-zero; T Turn Counter	
SWFA: 30mm series "Turrets + scope very tough."	550 <sup>Demo</sup> , 700	Life, NoRec	Yes ??	3-15x	35-7	42	11-2.8	NO	125	0.1mil 1/4mo	5 mil 15mo	MIL = or MOA =	= MIL = MOA	FFP Thick O/S Posts	D or D, N	.06 <sup>mi</sup> .20 <sup>mo</sup>	30	24.1 680g	13.7" 35c	T Turn Counter Tough! Turrets abit ugly. Min. Parall. 7y	
Sightron: S-TAC: [FFP!] • Ret. MIL	660; 800	Life		4-20x	22-4	50	?	Y	80	(40 wind age)	0.1 mil	5 mil	MIL =	= MIL	FFP Thick O/S Posts	D, N	.035 <sup>mi</sup> .12 <sup>mo</sup>	30	25.6 725g	15.0" 38c	T Turn Counter 0-Stop
Shepherd (US): BRS • BRS-MIL Ret. • BRS-MOA Ret.	449; 549	Life, 00wn		4-16x	25-7	44	?	Y	65	0.1mi 1/4mo	6 mil 15 mo	MIL = MOA =	= MIL = MOA	FFP <sup>12</sup> Thick O/S Posts	D, N, Grid	.05 <sup>mi</sup> .16 <sup>mo</sup> ?	30	23.6 670g	13.8" 35c	T Turn Counter Locking Turrets	
Sightron: S-TAC: FFP Zero Stop • Mil-Hash-2 Ret. <sup>No. 26017-S-TAC3-16X42FFPSZPMH</sup> • Moa-5 Ret. <sup>No. 26020-S-TAC3-16X42SSPPIRM0A</sup>	580; 670	Life		3-16x	29-6	42	?	Y	70	0.1mi 1/4mo	5 mi 15 mo	MIL =	= MIL	FFP Thick O/S Posts	D, N	.05 <sup>mi</sup> .17 <sup>mo</sup> .03 <sup>mi</sup> .10 <sup>mo</sup>	30	24.8 703g	13.3" 34c	0-Stop T Turn Counter	

				Magni.	→ FoV	→ Eye Box	Exposed Turrets				Holdoff Reticle			Dimensions						
*in 2019, some 2020, 2021, 2022, 2023 Brand: Series Part No.	Price*: Low; Mfctr.'s in US \$	War-ranty	Spirn-ger-Rated	Magni-fication	FoV =Field of View @ 100y (ft)	Obj. Ø Dia (mm)	Exit Pupil (mm)	IR Y, N	Max. Elev. Admt. (MOA)	1 Click =	1 T. Turn =	Turrets in:	Reticle in:	FFP Thick O/S Posts? — SFP Calibration at ?	Enough Dots, No's, Grid CD CenterDot	Line Thick-ness	Tube Dia-meter	Weight (oz) (g)	Length (inch) (cm)	Misc. + Reviewers' "Comments"
Element: Helix FFP • MIL Ret. APR-2D MRAD • MOA Ret. APR-2D MOA	460; —	Life, NoRec.		4-16x	26-6 <sup>5</sup>	44	13-3.3	NO	80 <sub>45 Wind</sub>					FFP <sup>29</sup> Thick O/S Posts	D, N, Grid CD	.045 <sup>mi</sup> .15 <sup>mo</sup>	30	23.8 675g	14.2" 36c	Parallax 15y Toolless Re-zero; 0-Stop – limits the max. adjustment?? T Turn Counter
• MIL Ret. APR-1C MRAD • MOA Ret. APR-1C MOA										0.1 mi 1/4 mo	6 mil 15 mo	MIL = MOA =	=MIL =MOA	D, N, CD	?	?				
Athlon: Midas TAC No. 213070	590; 737	Life, NoRec.	?	4-16x	28-7	44	11- 1.8 <sup>erfor</sup>	NO	100	0.1 mil	10 mil	MIL = MOA =	=MIL =MOA	FFP <sup>8</sup> Thick O/S Posts	D, N, CD	.04 <sup>mi</sup> .14 <sup>mo</sup>	30	23.8 669g	14.3" 36c	True 0-Stop T Turret Counter Capped Windage
Maven: RS.1 – Buy With Custom Turret!! Only MOA-2 Ret.!	1200; 1200	Life		2.5-15x	42-7	44	28- 2.9	NO	100	1/4 moa	20 moa	MOA = MOA =	=MOA =MOA	FFP Thick O/S Posts	All: CD • 10 <sup>mo</sup> WindN	?	30	24.5 695g	14.1" 36c	

### Section 3:

**6-24x | 5-20x | and all over 20x top end magnification, with at least 6x or less on the bottom: 4-24x | 5-30x**  
**Weight: 28.6oz = 811g or less**

				Magni.	→ FoV	→ Eye Box	Exposed Turrets				Holdoff Reticle			Dimensions						
*in 2019, some 2020, 2021, 2022, 2023 Brand: Series Part No.	Price*: Low; Mfctr.'s in US \$	War-ranty	Spirn-ger-Rated	Magni-fication	FoV =Field of View @ 100y (ft)	Obj. Ø Dia (mm)	Exit Pupil (mm)	IR Y, N	Max. Elev. Admt. (MOA)	1 Click =	1 T. Turn =	Turrets in:	Reticle in:	FFP Thick O/S Posts? — SFP Calibration at ?	Enough Dots, No's, Grid CD CenterDot	Line thick-ness	Tube Dia-meter	Weight (oz) (g)	Length (inch) (cm)	Misc. + Reviewers' "Comments"
<b>SFP Scopes</b>																				
Nikko: Diamond Long Range No. NDSI62450LRHMD	250; ?	Life, 0.0wn		6-24x	21-5	50		Y	40	1/4 moa		MOA ≠ MOA ≠	#MIL #MIL	SFP X?	D		30	27.8 788g	15.4" 39c	
MTC: Viper Pro Tactical	520; ?	Life <sup>30d</sup> , R. 0.0wn		5-30x	24-4 <sup>2</sup>	50		Y	42	1/4 moa	10 moa	MOA ≠ MOA ≠	#MIL #MIL	SFP X?	D	?	30	25.8 732g	16.4" 42c	not customizable
Bushnell: Engage No. REN62450DG	450; 350, 540	Life, NoRec.		6-24x	18-4	50	?	NO	50	1/8 moa	8 moa	MIL ≠ MIL ≠	#MOA #MOA	SFP X?	D	.05 <sup>mi</sup> .18 <sup>mo</sup>	30	23.7 672g	14.2" 36c	
Aztec: Emerald SFP	440; —	Life		5.5- 25x	19 <sup>1</sup> - 4 <sup>2</sup>	50	?	NO	c. 40?	1/4 moa	15 moa	MOA = MOA =	=MOA =MOA	SFP 18x?	D, N	?	30	25.4 720g	14.4 37c	
Optisan: EVX Gen. 2: 5-20x50i No. 37526	430; 440	Life		5-20x	23-6	50	10- 2.5	Y	50	0.1 mil	4.8 mil	MIL = MIL =	=MIL =MIL	SFP X?	D, (N)	.05 <sup>mi</sup> .18 <sup>mo</sup>	30	27.0 765g	14.4" 37c	
Hawke: Sidewinder 30 SF No. 17150	479; 639	Life, R. 0.0wn	Yes	6.5- 20x	19.5- 6 <sup>3</sup>	44	7- 2.2	Y	95	0.1 mil	6 mil	MIL = MIL =	=MIL =MIL	SFP 20x	D, Grid	?	30	24.0 680g	13.3" 34c	T Turn Counter
Vector: Paragon 30mm Gen. 2 No. SCOL-27	449; 449	Life, NoRec.		6-30x	18.8- 3.8	56	9.1- 1.5	Y	60	0.1 mil	8 mil	MIL = MIL =	=MIL =MIL	SFP 10x	D, N, Grid		30	24.7 700g	14.4" 37c	Parallax 15y Locking Turrets
Vector: Paragon 30mm Gen. 2 No. SCOL-26	420; 529	Life, NoRec.		5-25x	22.5- 4.5	56	8- 2.2	Y	60	0.1 mil	8 mil	MIL = MIL =	=MIL =MIL	SFP x?	D, N, Grid		30	23.6 670g	14.4" 37c	Parallax 15y Locking Turrets

				Magni.	→ FoV	→ Eye Box	Exposed Turrets				Holdoff Reticle			Dimensions						
*in 2019, some 2020, 2021, 2022, 2023 Brand: Series Part No.	Price*: Low; Mfctr.'s in US \$	Warranty	Spin-ger-Rated	Magnification	Field of View @ 100y (ft)	Obj. Dia (mm)	Exit Pupil (mm)	IR Y, N	Max. Elev. Adjmt (MOA)	1 Click =	1 T. Turn =	Turrets in:	Reticle in:	FFP Thick O/S Posts? — SFP Calibration at ?	Enough Dots, No.'s, Grid, CenterDot	Line thickness	Tube Dia-meter	Weight (oz) (g)	Length (inch) (cm)	Misc. + Reviewers' "Comments"
Vector: Tarus HD HT No. SCOL-46	400; 299	Life		<b>6-24x</b>	17.9-4.5	50	8.3-2.2	Y	60	0.1 mil	6 mil	MIL =	=MIL	SFP 10x	D, N, CD		30	26.9 763g	14.3" 36c	0-Stop; Turn Counter; Large Turrets
Element: Helix SFP • MIL Ret. PR-1C SFP • MOA Ret. EHR-1C SFP	400; —	Life, NoRec.		<b>6-24x</b>	19 <sup>1</sup> -4 <sup>2</sup>	50	9-2.0	NO	65	0.1 mil	6 mil	MIL =	=MIL	SFP 24x	D, N	?	30	26.0 737g	13.3" 36c	Toolless Re-zero; 0-Stop; Turn Counter
Hawke: Airmax 30 SF Compact No. 13220	395; 459	Life, R. 0.Own	Yes!	<b>6-24x</b>	21.9-5.5	50	8-2.1	Y	53	0.1 mil	6 mil	MIL =	=MIL	SFP 10x	D	?	30	23.6 670g	13.0" 33c	Capped Turrets BUT Large for Clicking! T Turn Counter
Hawke: Frontier SF • Ret. Mil Pro No. 18140	529; 699	Life, R. 0.Own	Yes!	<b>5-25x</b>	22.5-4.5	50	10-2.0	Y	37	0.1 mil	8 mil	MIL =	=MIL	SFP 20x	D, N, Grid	?	1"	22.2 628g	14.4" 36c	3 Screws to rezero; Locking Turrets; 0-Stop
Hawke: Sidewinder 30 SF • 20x Half Mil Ret. No. 47260	499; 659	Life, R. 0.Own	Yes	<b>6-24x</b>	21 <sup>3</sup> -5.4	56	9-2.3	Y	70	0.1 mil	6 mil	MIL =	=MIL	SFP 20x	D, Grid	?	30	27.3 775g	14.3" 36c	T Turn Counter
Vector: Continental X6 30mm • Tactical Lock   No. SCOL-33T • Tactical ARI   No. SCOL-54 • Tactical   No. SCOL-43	?; 529	Life, NoRec.		<b>4-24x</b>	31 <sup>1</sup> -5 <sup>2</sup>	50	9-2.1	Y	67	0.1 mil	8 mil	MIL =	=MIL	SFP 20x	D, N, Grid, CD		30	23.6 670g	14.6" 37c	Parallax 15y; 3 Screws to rezero; • Locking Turrets • 0-Stop; Large Turrets • 0-Stop; Large Turrets; Color FDE
Vector: Continental X8 ED Tactical No. SCOL-T51	?; 765	Life, NoRec.		<b>4-32x</b>	30.7-3.8	56	8-1.7	Y	70	0.1 mil	8 mil	MIL =	=MIL	SFP ?x	D, N, Grid		30	28.0 795g	15.1" 39c	Parallax 17-15y (yes); 0-Stop; Locking Turrets
Maven: RS.5 Only SHR-MIL Ret.!	1400; 1400	Life	?	<b>4-24x</b>	27.8-4.6	50	8.5-2.1	Y	100	0.1 mil	10 mil	MIL =	=MIL	SFP 24x	• 5mi Elev., CD	?	30	25.5 723g	14.4" 37c	0-Stop; Windage capped
Hawke: Frontier 30 SF • Mil Pro Ret. No. 18441	740; 949	Life, R. 0.Own	Yes	<b>5-30x</b>	22.5-3.6	56	11-1.9	Y	57	0.1 mil	8 mil	MIL =	=MIL	SFP 20x	D, N, Grid	?	30	25.5 724g	15.8" 40c	3 screws to rezero; Locking Turrets; 0-Stop
Hawke: Frontier 30 SF • Mil Pro Ret. No. 18431	699; 899	Life, R. 0.Own	Yes	<b>4-24x</b>	28 <sup>2</sup> -4.8	50	12-2.1	Y	73	0.1 mil	8 mil	MIL =	=MIL	SFP 20x	D, N, Grid	?	30	23.4 662g	14.5" 37c	Parallax 15y; 3 screws to rezero; Locking Turrets; 0-Stop
Vector: Continental X6 Tactical SFP • Tactical Lock   No. SCOL-22T • Zero Stop Tactical   No. SCOL-47	590; 599	Life		<b>5-30x</b>	24.9-4 <sup>2</sup>	56	9.5-1.9	Y	57	0.1 mil	8 mil	MIL =	=MIL	SFP 20x	D, N, Grid, CD	.03 <sup>mi</sup> .10 <sup>mo</sup>	30	25.6 725g	15.7" 40c	Parallax 15y – or 10y?; 3 screws to rezero; • Locking Turrets • 0-Stop; Large Turrets
Trijicon: Tenmile • Red Dot No. TM42450-C-300007 • Green Dot No. TM42450-C-300008	900, 1200; 1890	Life	?	<b>4-24x</b>	28.5-4.7	50	8-2.0	Y	100 Windage	0.1 mil	8 mil	MIL =	=MIL	SFP 24x	D	.06 <sup>mi</sup> .20 <sup>mo</sup>	30	25.7 729g	14.5" 37c	0-Stop; Turn Counter; Capped Windage Turret
<b>FFP Scopes</b>																				
<b>FFP Scopes – without Thick Outside Posts in the Reticle</b>																				
Sun Optics: FFP Variable No. CS41-62450	400; 557	1y		<b>6-24x</b>	17-4	50	8-2.0	NO	??	0.1 mil	6 mil	MIL =	=MIL	FFP No Thick Posts	D	.10 <sup>mi</sup> .34 <sup>mo</sup>	30	26.0 737g	14.5" 37c	

				Magni.	→ FoV	→ Eye Box	Exposed Turrets				Holdoff Reticle			Dimensions					
*in 2019, some 2020, 2021, 2022, 2023 Brand: Series Part No.	Price*: Low; Mfctr.'s in US \$	War- rancy	Spir- ger- Rated	Magni- fication	=Field of View @ 100y (ft)	Obj. Ø Dia (mm)	Exit Pupil Y, N	Max. Elev. Adjmt (MOA)	1 Click =	1 T. Turn =	Turrets in:	Reticle in:	FFP Thick O/S Posts? — SFP Calibration at ?	Enough Dots, No.'s, Grid CenterDot	Line thick- ness	Tube Dia- meter	Weight (oz) (g)	Length (inch) (cm)	Misc. + Reviewers' "Comments"
Vector: Veyron 6-24x44 No. SCFF-23	198; 289	5y	Yes	6-24x	17.5-4 <sup>3</sup>	44	7-1.8	NO 50	0.1 mil	6 mil	MIL =	=MIL	FFP <sup>3</sup> No Thick Posts	D .025 <sup>mi</sup> .08 <sup>mo</sup>	30	20.5 <b>580g</b>	11.7" <b>30c</b>	Locking Turrets	
Vector: Marksman 6-24x50 No. SCFF-26 (not the 25x50, SCFF-11)	?; 230	5y, Rec.		6-24x	17-5	50	8-2.1	NO 60	0.1 mil	6 mil	MIL =	=MIL	FFP <sup>16</sup> No Thick Posts	D, N, Grid	?	30	24.7 <b>700g</b>	14.2" 36c	Locking turrets
MTC: King Cobra F1	446,629; —	Life <sup>30d</sup> R. O.own		6-24x	16-4	50	?	Y 38 (??)	0.1 mil	5 mil	MIL =	=MIL	FFP <sup>18</sup> No Thick Posts	D		30	26.3 746g	14.4" 37c	Locking Turrets Magnify. Lens Cap
Hawke: Airmax 30 FFP SF No. 13352	496; 589	Life, R. O.own	Yes!	6-24x	21 <sup>0</sup> -5 <sup>2</sup>	50	8-2.1	Y 57	0.1 mil	6 mil	MIL =	=MIL	FFP No Thick Posts	D	?	30	27.0 765g	14.9" 38c	Capped Turrets! BUT Clickable
Hawke: Vantage 30 WA FFP No. 14304	424; 589	Life, R. O.own	<12 FPE	6-24x	21 <sup>0</sup> -5 <sup>2</sup>	50	8-2.1	Y 60	0.1il	6 mil	MIL =	=MIL	FFP No Thick Posts	D	?	30	26.6 755g	14.9" 38c	
Hawke: Sidewinder 30 FFP • FFP Half Mil Ret. No. 17460 • FFP MOA Ret. No. 17461	629, 799; 670, 799	Life, R. O.own	Yes	6-24x	21 <sup>3</sup> -5.4	56	9-2.3	Y 70	0.1mi	6 mil	MIL =	=MIL	FFP No Thick Posts	D, Grid	?	30	27.3 775g	14.3" 36c	T Turn Counter
Vector: Taurus No. SCFF-17	380; 430	Life, NoRec.		4-24x	25.5-4.2	50	12-2.1	Y 50	0.1 mil	6 mil	MIL =	=MIL	FFP <sup>23</sup> No Thick Posts	D, N, CD	.04 <sup>mi</sup> .14 <sup>mo</sup>	30	27.1 770g	15.0" 38c	Parallax is 10y. Locking turrets
Hawke: Frontier 30 FFP • Mil Pro 25x Ret. No. 18540	849; 1049	Life, R. O.own	Yes	5-25x	22.5-4.5	56	11-2.2	Y 65	0.1 mil	8 mil	MIL =	=MIL	FFP <sup>14</sup> No Thick Posts	D, N, Grid	?	30	24.6 698g	14.4" 37c	Parallax 15y 3 Screws to rezero; Locking Turrets; 0-Stop

### FFP Scopes – with Thick Outside Posts in the Reticle

Vector: Tourex No. SCFF-19	?; 280	5y, Rec.		6-24x	18-5	50	8-2.1	Y 50	1/4 moa	15 moa	MOA =	=MOA	FFP <sup>17</sup> Thick O/S Posts 4.12, 20, 28, 36	?	30	26.3 745g	14.3" 37c	0-Stop		
Aztec: Emerald FFP	540; —	Life	Yes!	5.5-25x	19 <sup>1</sup> -4 <sup>2</sup>	50	?	Y c. 40?	1/4 moa	15 moa	MOA =	=MOA	FFP <sup>19</sup> Thick O/S Posts	D, N mini Grid	?	30	25.4 720g	14.4" 37c	"Low DoF"	
Element: Nexus • APR-1C MRAD Ret. • APR-2D MRAD Ret. • EHR-1C MOA Ret. • EHR-1D MOA Ret.	1500; 1500	Life		5-20x	23 <sup>3</sup> -5.8	50	8-2.5	Y 80 50 wind- age	0.1mi	10 mi	MIL =	=MIL	FFP Thick O/S Posts	•D, N •+Grid •D, N •+Grid	?	30	28.0 794g	13.8" 35c	0-Stop. T Turn Counter. Toolless Rezero	
Nikko: Diamond FFP 30 • PRR Ret. No. NSFP62450PRR • Skeleton HMD Reticle No. NSFP62450HMD	300; ?	Life, O.own		6-24x	19-5	50	?	Y 50	0.1 mil	6 mil	MIL =	=MIL	FFP <sup>27</sup> O/S Posts•Thick •Not Thick	D, N D, —	.05 <sup>mi</sup> .17 <sup>mo</sup>	30	24.0 680g	14.2" 36c	Locking Turrets	
Nikko: Diamond FFP 34 • PRR Ret. No. NSFP3441644PRR • Skeleton HMD Ret. No. NSFP3462450PRR	430; ?	Life, O.own		6-24x	21-5	50	?	Y 80	0.1 mil	6 mil	MIL =	=MIL	FFP <sup>28</sup> O/S Posts•Thick •Not Thick	D, N D, —	.05 <sup>mi</sup> .17 <sup>mo</sup>	34	26.5 750g	14.2" 36c	Locking Turrets	
Optisan: EVX, Gen. 2: 6-24x50 F1 • w/o IR No. 37583   • w/o IR No. 37534	?; 560	Life		6-24x	19.4-4.9	50	8-2.1	Either	50	0.1 mil	4.8 mil	MIL =	=MIL	FFP <sup>21</sup> Semi Thick Posts	D, (N)	?	30	26.5 751g	14.8" 38c	Locking Turrets
Riton (US): 3 Conquer	500; 587	Life, NoRec	Yes	6-24x	17-4	50	8-2.1	Y 70	0.1 mil	6 mil	MIL =	=MIL	FFP Thick O/S Posts	D, N, Grid	.045 <sup>mi</sup> .15 <sup>mo</sup>	30	27.1 768g	14.1" 36c	0-Stop	
Swampfox (US): Patriot • Sharpsh. Grid Ret. MIL No. PAT62450-L • Sharpsh. Grid Ret. MOA No. PAT62450-M	300; 429	Life (50000 rounds)		6-24x	17.5-4 <sup>2</sup>	50	8-2.1	NO 65	0.1mi	6 mi	MIL =	=MIL	FFP Thick O/S Posts	D, N, Grid	?	30	24.0 680g	14.5 37c		

				Magni.	→ FoV	→ Eye Box	Exposed Turrets			Holdoff Reticle			Dimensions							
*in 2019, some 2020, 2021, 2022, 2023 Brand: Series Part No.	Price*: Low; Mfctr.'s in US \$	Warranty	Springer-Rated	Magnification	Field of View @ 100y (ft)	Obj. Dia (mm)	Exit Pupil (mm)	IR Y, N	Max. Elev. Adjmt (MOA)	1 Click =	1 T. Turn =	Turrets in:	Reticle in:	FFP Thick O/S Posts? — SFP Calibration at ?	Enough Dots, No.'s, Grid, CenterDot	Line thickness	Tube Diameter	Weight (oz) (g)	Length (inch) (cm)	Misc. + Reviewers' "Comments"
Blackhound (US): Genesis 6-24x50 FFP • MIL • MOA	?; 400	Life, Anyb.	?	<b>6-24x</b>	<b>16-4</b>	50	?	Y	70	0.1mi	5 mi	MIL =	=MIL	FFP <sup>9</sup> Thick O/S Posts	D, N	?	30	27.5 780g	14.1" 36c	0-Stop T Turn Counter
Vortex: Diamondback Tactical • MIL Ret. No. DBK-10029 • MOA Ret. No. DBK-10028	400, 300; 500	Life		<b>6-24x</b>	<b>18<sup>0</sup>-4.5</b>	50	8- <small>calculated</small> <b>2.1</b>	<b>NO</b>	65	0.1mi 1/4mo	6 mi 15 mo	MIL =	=MIL	FFP <sup>8</sup> Thick O/S Posts	D, N, Grid	.03 <sup>mi</sup> .12 <sup>mo</sup>	30	24.6 697g	14.3" 36c	"Tracks" "small Eyebox"
Element: Helix FFP • MIL Ret. APR-2D MRAD • MOA Ret. APR-2D MOA	480; —	Life, NoRec.		<b>6-24x</b>	<b>18<sup>3</sup>-4.6</b>	50	9- <b>2.2</b>	<b>NO</b>	65	0.1 mi 1/4 mo	6 mi 15 mo	MIL =	=MIL	FFP <sup>30</sup> Thick O/S Posts	D, N, Grid	?	30	26.0 737g	14.3" 36c	Toolless Re-zero; 0-Stop; Turn Counter
Athlon: Midas TAC • MIL APRS2 Ret. No. 213075 • MIL APRS3 Ret. No. 213077 • MOA APLR4 Ret. No. 213076	• 630 756   • 670 837   • 670 837	Life, NoRec.		<b>6-24x</b>	<b>17.8-4.6</b>	50	11- <b>1.8</b>	Y	85 50 Windage	0.1mi 1/4mo	10 mi 25 mo	MIL =	=MIL	FFP <sup>5</sup> Thick O/S Posts	D, N, Grid	.03 <sup>mi</sup> .10 <sup>mo</sup> .036 <sup>mi</sup> .12 <sup>mo</sup>	30	26.3 746g	14.6" 37c	0-Stop T Turn Counter Windage Capped
Delta: Stryker HD • DLR-1 Ret. No. DO-2515 • DPRC-1 Ret. No. DO-2514	1595; —	10y Rec.		<b>3.5-21x</b>	33.3-5.7	<b>44</b>	?	Y	170 80 Windage	0.1 mil	10 mil	MIL =	=MIL	FFP Thick O/S Posts	• D, N, CD, Grid • D, N, CD, Grid	.05 <sup>mi</sup> .17 <sup>mo</sup> .035 <sup>mi</sup> .12 <sup>mo</sup>	34	28.4 805g	12.4" 32c	0-Stop T Turn Counter Locking Turrets Windage Capped ▲Eye relief from 7.1-9.9cm
Arken (US): EPL4 • MIL Ret. No. EPL4-6241VHR • MOA Ret. No. EPL4-6240VHR	400; 440	Life		<b>6-24x</b>	<b>18.6-4.7</b>	50	?	Y	68 40 Windage	0.1mi 1/4mo	8 mi 20 mo	MIL =	=MIL	FFP <sup>42</sup> Thick O/S Posts	D, N, CD	.03 <sup>mi</sup> .10 <sup>mo</sup>	30	23.7 672g	13.8" 35c	0-Stop, 3 screws to rezero, T Turn Counter
Swampfox (US): Kentucky Long • SharpsH. Grid Ret. MIL No. KTK42450-4L • SharpsH. Grid Ret. MOA No. KTK42450-4M	459; 569	Life <small>(50000 rounds)</small>		<b>4-24x</b>	30.9-4.7	50	11- <b>2.0</b>	Y	90	0.1mi 1/4mo	6 mil 15 mo	MIL =	=MIL	FFP <sup>33</sup> Semi Thick Posts	D, N, Grid	?	30	28.2 800g	15.1 38c	Locking Turrets
Vector: Continental 34mm • No. SCFF-29 VCT (typical grid) • No. SCFF-40 MBR (w/ 25mil elev. holds and person-ranging diagram) • No. SCFF-39 MBR FDE (same ret. as SCFF-40) Scope Color is FDE.	680; 850	Life, NoRec.		<b>4-24x</b>	30.6-5 <sup>1</sup>	<b>56</b>	8- <b>2.3</b>	Y	115	0.1 mil	10 mil	MIL =	=MIL	FFP <sup>25</sup> Thick O/S Posts	D, N, Grid, CD	.04 <sup>mi</sup> .14 <sup>mo</sup>	34	27.5 780g	14.3" 36c	0-Stop with 70moa Limit Locking Turrets mech. T-Counter FDE Color = Flat Dark Earth
Vector: Continental 34mm X6 • No. SCFF-30 VCT • No. SCFF-41 MBR (w/ 25mil elev. holds and person-ranging diagram)	710; 900	Life, NoRec.		<b>5-30x</b>	<b>24.7-4<sup>1</sup></b>	56	8- <b>1.8</b>	Y	88 mine had 96 moa	0.1 mil	10 mil	MIL =	=MIL	FFP <sup>26</sup> Thick O/S Posts	D, N, Grid	.03 <sup>mi</sup> .10 <sup>mo</sup>	34	28.6 810g	15.4" 39c	0-Stop with 70moa Limit Locking Turrets mech. T-Counter
Nightforce: NX8 • MOAR F1 Ret. • MIL-C F1 Ret. • MIL-XT Ret.	2150; 2150	Life, Anyb., Register		<b>4-32x</b>	<b>26<sup>1</sup>-4.6</b>	50	7- <b>1.6</b>	Y	90 70 Windage	1/4mo —	25 mo —	MOA =	=MOA	FFP <sup>45</sup> Thick O/S Posts	• D, N, CD, Grid • D, N, CD, Grid • and Grid	? <sup>mi</sup> ?? <sup>mo</sup> .04 <sup>mi</sup> .14 <sup>mo</sup> ?? <sup>mi</sup> ?? <sup>mo</sup>	30	28.6 811g	13.4" 34c	0-Stop; 3 Screws to rezero; Locking Turrets

## Notes on Reticles in Section 1:

### 3-12x | 3-9x | 3x or lower on the bottom end, at least 9x on the top end

#### Notes About Different Scopes – N1, N2, N3, etc.:

**N1:** Sightron ExacTrack turret adjustment system: Though the turrets of the indicated scope are capped, they are made for dialing, because they use the same ExacTrack turret adjustment system as the uncapped scopes of the following series (as of the 2012 and 2022 catalog): S-TAC | SVIII | S6 | SV | SIII | SII | SII Big Sky  
→ Dialing Turrets (capped w/ <sup>N1</sup>)

**N2:** [free]

**N3:** [free]

**N4:** This scope has “Gen. 2” in its name, as it belongs to the second generation of its series – but is *not the second iteration of this particular scope* with this particular magnification range and objective diameter.

#### Reticles: Footnotes: Links for Views or Videos of FFP Reticles at Different Magnifications

Note on more detailed reticle diagrams:

- Athlon: Each scope on their homepage includes detailed diagrams: <https://athlonoptics.com>
- Discovery: Many scope reticles are listed here: <https://discoveryoptics.co.uk/reticles/>

<sup>1</sup> Athlon: Talos BTR: 4-14x44 FFP: APLR2 MIL Grid: Reticle at min. and max. magnification:  
<https://athlonoptics.com/product/rifle-scopes-talos-btr-4-14x44-aplr-ffp-ir-mil>

<sup>2</sup> Vector: Veyron: 3-12x44 FFP: Reticle at all magnifications: @ 2:46min:  
<https://www.youtube.com/watch?v=9En0mgrsINM>

<sup>3</sup> Vector: Veyron: 4-16x44 FFP: Reticle at all magnifications: @ 3:20min and at @ 17:18min to 18:05min:  
<https://www.youtube.com/watch?v=gXEKU27mXtQ>

<sup>4</sup> Swampfox: Kentucky Long: 2-12x44 FFP: MOA: Reticle at 2x and at 12x(?):  
[https://images-na.ssl-images-amazon.com/images/I/71%2B5YMUAxL.AC\\_SL1500.jpg](https://images-na.ssl-images-amazon.com/images/I/71%2B5YMUAxL.AC_SL1500.jpg)  
[https://images-na.ssl-images-amazon.com/images/I/71aX%2BZ5aDFL.AC\\_SL1500.jpg](https://images-na.ssl-images-amazon.com/images/I/71aX%2BZ5aDFL.AC_SL1500.jpg)

Cf. also the other models of this series that have the same six-fold magnification range, resulting in the same ratio of reticle increase/decrease (there are several videos available to see the reticles of those scopes).

<sup>5</sup> Monstrum: FFP-G1: 4-14x44: (No. FFPS41444-M): Reticle at min. and max. magnification:  
[https://web.archive.org/web/20191122043510/https://cdn11.bigcommerce.com/s-r7nbep7374/images/stencil/1280x1280/products/252/2002/MONSTRUM-TACTICAL-4-14X44-FFP-FIRST-FOCAL-PLANE-RIFLE-SCOPE-FFPS-HUNTING-AR-15-LR-3083\\_95364.1551303891.jpg?c=2](https://web.archive.org/web/20191122043510/https://cdn11.bigcommerce.com/s-r7nbep7374/images/stencil/1280x1280/products/252/2002/MONSTRUM-TACTICAL-4-14X44-FFP-FIRST-FOCAL-PLANE-RIFLE-SCOPE-FFPS-HUNTING-AR-15-LR-3083_95364.1551303891.jpg?c=2)

<sup>6</sup> Athlon: Helos BTR Gen. 2 2-12x42 FFP: Reticle at min. and max. magnification:  
• MIL, No. 214105 <https://athlonoptics.com/product/helos-btr-gen2-2-12x42-dmr-scope/>  
• MOA, No. 214104 <https://athlonoptics.com/product/helos-btr-2-12x42-ahmr2-ffp-ir-moa/>

<sup>7</sup> Discoveryopt: ED-AR1: 1-8x24 FFP: Reticle at 1x, 4x, and 8x magnification:  
<https://www.discoveryopt.com/products/89>

<sup>8</sup> Arken: EPL4: 4-16x44 FFP:  
MIL VHR: Reticle Subtensions:

[https://www.arkenopticsusa.com/\\_ipx/w\\_1920,q\\_100/https%3A%2F%2Fcdn.sanity.io%2Fimages%2Fu57cw5zd%2Fproduction%2F3917883977bc6e2f37f55eab92830f303f99d20d-4005x4005.png%3Fauto%3Dformat?url=https%3A%2F%2Fcdn.sanity.io%2Fimages%2Fu57cw5zd%2Fproduction%2F3917883977bc6e2f37f55eab92830f303f99d20d-4005x4005.png%3Fauto%3Dformat&w=1920&q=100](https://www.arkenopticsusa.com/_ipx/w_1920,q_100/https%3A%2F%2Fcdn.sanity.io%2Fimages%2Fu57cw5zd%2Fproduction%2Fdaa6661e721237bec2a01cf12962abab2540216-4005x4005.png%3Fauto%3Dformat?url=https%3A%2F%2Fcdn.sanity.io%2Fimages%2Fu57cw5zd%2Fproduction%2Fdaa6661e721237bec2a01cf12962abab2540216-4005x4005.png%3Fauto%3Dformat&w=1920&q=100)

MOA VHR: Reticle Subtensions:

[https://www.arkenopticsusa.com/\\_ipx/w\\_1920,q\\_100/https%3A%2F%2Fcdn.sanity.io%2Fimages%2Fu57cw5zd%2Fproduction%2F3917883977bc6e2f37f55eab92830f303f99d20d-4005x4005.png%3Fauto%3Dformat?url=https%3A%2F%2Fcdn.sanity.io%2Fimages%2Fu57cw5zd%2Fproduction%2F3917883977bc6e2f37f55eab92830f303f99d20d-4005x4005.png%3Fauto%3Dformat&w=1920&q=100](https://www.arkenopticsusa.com/_ipx/w_1920,q_100/https%3A%2F%2Fcdn.sanity.io%2Fimages%2Fu57cw5zd%2Fproduction%2F3917883977bc6e2f37f55eab92830f303f99d20d-4005x4005.png%3Fauto%3Dformat?url=https%3A%2F%2Fcdn.sanity.io%2Fimages%2Fu57cw5zd%2Fproduction%2F3917883977bc6e2f37f55eab92830f303f99d20d-4005x4005.png%3Fauto%3Dformat&w=1920&q=100)

<sup>9</sup> Discoveryopt: HD: 2-12x24 FFP: Reticle at 2x, 6x, and 12x magnification:  
<https://www.discoveryopt.com/products/106>

## Notes on Reticles in Section 2:

### 4-20x | 4-16x | 4-14x

#### **Notes About Different Scopes – N1, N2, N3, etc.:**

**N1:** Sightron ExacTrack turret adjustment system: Though the turrets of the indicated scope are capped, they are made for *dialing*, because they use the same ExacTrack turret adjustment system as the uncapped scopes of the following series (as of the 2012 and 2022 catalog): S-TAC | SVIII [S8] | S6 | SV [S5] | SIII [S3] | SII [S2] | SII Big Sky

#### **Reticles: Footnotes: Links for Views or Videos of FFP Reticles at Different Magnifications**

- Note: Sometime in 2022 I began to save some reticle links in the following web archive, so that even if manufacturers or seller deleted the webpage or changed the URL, the link was still accessible through the archive, here:

<https://archive.org/web/web.php>

- Note on more detailed reticle diagrams:

- Athlon: Each scope on their homepage includes detailed diagrams: <https://athlonoptics.com>
- Discovery: many scopes reticles are listed here: <https://discoveryoptics.co.uk/reticles/>

<sup>1</sup> Vector: Taurus: 3-18x50 FFP: Reticle at all magnifications: @ 7.59min:

<https://www.youtube.com/watch?v=SOOdqEcwgU4>

<sup>2</sup> Blackhound: 4-14x44 FFP: Reticle at min. and max. magnification:

- Alpha MIL reticle (like in the 6-24x50, the Blackhound page has an error here, and like the MOA and the 6-24x50 FPP – the 4-14x44 FPP most likely has the thick posts:

<https://www.blackhoundoptics.com/product/genesis-6-24x50-ffp-mil>

- Ascent MOA reticle: <https://www.blackhoundoptics.com/product/genesis-6-24x50-ffp-moa/>

<sup>3</sup> Primary Arms: Silver Series: 3-18x50 FFP: Apollo 6.5CM MIL Grid reticle: Reticle at min. and max. magnification:

<https://www.primaryarms.com/pa-3-18x50mm-illuminated-ffp-rifle-scope-with-acss-apollo-6-5cm-reticle>

<sup>4</sup> Primary Arms: Silver Series: 4-14x44 FFP:

- R-Grid 2B reticle: <https://www.primaryarms.com/slx3-5-4-14x44mm-first-focal-plane-rifle-scope-with-illuminated-r-grid-2b-reticle>
- MIL-DOT reticle: <https://www.primaryarms.com/primary-arms-4-14x44mm-riflescope-mil-dot-pa4-14xpp>
- ARC-2-MOA reticle: <https://www.primaryarms.com/primary-arms-4-14x44mm-ffp-riflescope-arc-2-moa-reticle>

<sup>5</sup> Hawke: Sidewinder SF FFP [No. 17410]: 4-16x50: Reticle at min. and max. magnification:

<https://us.hawkeoptics.com/sidewinder-30-sf-ffp-riflescopes.html>

<sup>6</sup> Falcon: S18i 3-18x50 FFP: Reticle at all magnifications: @ 2:06min:

<https://www.youtube.com/watch?v=RGmnOFp2fUU>

<sup>7</sup> Athlon: Talos BTR 4-14x44 FFP: APLR2 MIL Grid: Reticle at min. and max. magnification:

<https://athlonoptics.com/product/rifle-scopes-talos-btr-4-14x44-aplr-ffp-ir-mi>

<sup>8</sup> Athlon: Midas TAC 4-16x44 FFP: APRS2 MIL: Reticle at min. and max. magnification:

<https://athlonoptics.com/product/midas-tac-4-16x44-mil/>

<sup>9</sup> Discovery: HD: 4-20x50 SFIR FFP: Reticle at all magnifications: @ 2:42min:

[https://www.youtube.com/watch?v=C1qBt7yg\\_ek](https://www.youtube.com/watch?v=C1qBt7yg_ek)

<sup>10</sup> Monstrum: FFP-G1: 4-14x44: (No. FFPS41444-M): Reticle at min. and max. magnification:

[https://web.archive.org/web/20191122043510/https://cdn11.bigcommerce.com/s-r7nbep7374/images/stencil/1280x1280/products/252/2002/MONSTRUM-TACTICAL-4-14X44-FFP-FIRST-FOCAL-PLANE-RIFLE-SCOPE-FFPS-HUNTING-AR-15-LR-3083\\_95364.1551303891.jpg?c=2](https://web.archive.org/web/20191122043510/https://cdn11.bigcommerce.com/s-r7nbep7374/images/stencil/1280x1280/products/252/2002/MONSTRUM-TACTICAL-4-14X44-FFP-FIRST-FOCAL-PLANE-RIFLE-SCOPE-FFPS-HUNTING-AR-15-LR-3083_95364.1551303891.jpg?c=2)

<sup>11</sup> Arken: SH4: 4-14x44 FFP: Reticle at all magnifications: 2:53min:

<https://www.youtube.com/watch?v=VpJRPnOOGso>

<sup>12</sup> Shepherd: BRS: 4-16x44 FFP: Reticle at min. and max. magnifications:

<https://shepherdscopes.com/wp-content/uploads/2020/04/4-16x44-BRS-MIL-Reticle.jpg>

<https://shepherdscopes.com/wp-content/uploads/2021/03/BRS-4-16-IR-Mil-Instructions.pdf>

BRS-MOA Ret.: <https://shepherdscopes.com/wp-content/uploads/2020/04/4-16x44-BRS-MOA-Reticle.jpg>

<sup>13</sup> Vector: Continental 34mm: 3-18x50: Reticle at min. and max. magnifications:  
<https://www.vectoroptics.com/data/uploads/2020/06/22/1592831083.jpg>

<sup>14</sup> Vector: Continental 34mm: 4-24x56: Reticle at all magnifications: @ 1:27min:  
<https://www.youtube.com/watch?v=ceLSb2gkmbk>  
<https://www.vectoroptics.com/data/uploads/2020/06/22/1592831142.jpg>

<sup>15</sup> Vector: Taurus: 4-24x50 FFP: Reticle at min. and max. magnification: @ 0:37min (play at slowest playback speed, the min. magnification will be shown only for a *split second* – but shows how thin the outside post really are, they are not really “medium”):  
<https://www.youtube.com/watch?v=rZRVuR5-398>

<sup>16</sup> Discovery: HD/34mm: 3-18x50 FFP: Reticle at all magnifications: 0:35min:  
<https://www.youtube.com/watch?v=2PZWxIWHfPc>

<sup>17</sup> Vector: Veyron: 4-16x44 FFP: Reticle at all magnifications: @ 3:20min and at @ 17:18min to 18:05min:  
<https://www.youtube.com/watch?v=gXEKU27mXtQ>

<sup>18</sup> Nikko: Diamond FFP: Nikko's *Skeleton HMD* reticle is used in several scopes and it does not have thick outside posts; the double lines used are just as thin as the rest of the reticle. Here is an example of the *Skeleton HMD* reticle, in the Diamond FFP 30mm 6-24x50: Reticle at different magnifications: 6x: @ 13:44min | 16x: @ 14:14min | 24x: 14:31min:  
[https://www.youtube.com/watch?v=VOy2lWN7N\\_c](https://www.youtube.com/watch?v=VOy2lWN7N_c)

<sup>19</sup> Optisan: EVX 4-16X44F1 (MIL-F1MH16): Reticle at all magnifications: @ 4:36min  
<https://www.youtube.com/watch?v=K1yoMv-VP2Y>

<sup>20</sup> Monstrum: FFP-G3: 4-14x44 No. G3F41444: Reticle at min. and max. magnification:  
[https://cdn11.bigcommerce.com/s-r7nbep7374/images/stencil/1280x1280/products/454/2468/Type-H-reticle\\_4-1\\_4x44\\_99131.1570125176.jpg?c=2](https://cdn11.bigcommerce.com/s-r7nbep7374/images/stencil/1280x1280/products/454/2468/Type-H-reticle_4-1_4x44_99131.1570125176.jpg?c=2)

<sup>21</sup> Discovery: VT-3: 4-16x50 FFP: Reticle at all magnifications (the operator of the camera sometimes does not achieve to focus the camera on the reticle, but after about a minute he gets it focused even at low magnification): @ 18:13min and 23:38min  
<https://www.youtube.com/watch?v=5NIOfltFLZc>

<sup>22</sup> Swampfox: Kentucky Long: 3-18x50 FFP:

Cf. the other models of this series that have the same six-fold magnification range, resulting in the same ratio of reticle increase/decrease:

Kentucky Long: 5-30x56 FFP: MOA Reticle: Reticle at all magnification: @ 3:16min:  
<https://www.youtube.com/watch?v=riYsEFSXYyw>

and the very similar Swampfox: Kentucky Long: 2-12x44 FFP: MOA: Reticle at 2x and at 12x(?):  
[https://images-na.ssl-images-amazon.com/images/I/71%2B5YMUAxL.AC\\_SL1500.jpg](https://images-na.ssl-images-amazon.com/images/I/71%2B5YMUAxL.AC_SL1500.jpg)  
[https://images-na.ssl-images-amazon.com/images/I/71aX%2BZ5aDFL.AC\\_SL1500.jpg](https://images-na.ssl-images-amazon.com/images/I/71aX%2BZ5aDFL.AC_SL1500.jpg)

<sup>23</sup> Swampfox: Kentucky Long: 4-24x50 FFP:

Cf. the other models of this series that have the same six-fold magnification range, resulting in the same ratio of reticle increase/decrease:

Swampfox: Kentucky Long: 5-30x56 FFP: MOA Reticle: Reticle at all magnification: @ 3:16min:  
<https://www.youtube.com/watch?v=riYsEFSXYyw>

And also: Swampfox: Kentucky Long: 2-12x44 FFP: MOA: Reticle at 2x and at 12x(?):  
[https://images-na.ssl-images-amazon.com/images/I/71%2B5YMUAxL.AC\\_SL1500.jpg](https://images-na.ssl-images-amazon.com/images/I/71%2B5YMUAxL.AC_SL1500.jpg)  
[https://images-na.ssl-images-amazon.com/images/I/71aX%2BZ5aDFL.AC\\_SL1500.jpg](https://images-na.ssl-images-amazon.com/images/I/71aX%2BZ5aDFL.AC_SL1500.jpg)

<sup>24</sup> Swampfox: Warhawk: 4-20x50 FFP:

Currently no reticle images of this particular scope. However, cf. the Swampfox Warhawk 5-25x56 FFP: MOA Reticle: at 5x: @ 1:04min (very briefly, use slo-mo, or pause it):

<https://www.youtube.com/watch?v=fFh5jeVgxE>

Cf. also the same reticle in the Kentucky Long models (several videos available; however the Warhawk has only a five-fold magnification range, as opposed to the Kentucky Long's six-fold, which means the reticle will increase/decrease 17% less).

<sup>25</sup> Swampfox: Warhawk: 3-15x50 FFP:

Currently no reticle images of this particular scope. However, cf. the Swampfox Warhawk 5-25x56 FFP: MOA

Reticle: at 5x: @ 1:04min (very briefly, use slo-mo, or pause it):

<https://www.youtube.com/watch?v=fFh5jleVgxE>

Cf. also the same reticle in the Kentucky Long models (several videos available; however the Warhawk has only a five-fold magnification range, as opposed to the Kentucky Long's six-fold, which means the reticle will increase/decrease 17% less).

<sup>26</sup> Hawke: Frontier 30 FFP: 5-15x50, Mil Pro 15x Reticle [No. 18520]:

No video found so far, however, cf. the link below for the same reticle in an FFP scope (4-20x), however there the reticle has to cover a 5-fold magnification range and thus will be much smaller at the bottom end of the magnification, and much larger at the top end than the present 3-15x scope that only has a 3-fold magnification range.

Hawke: Frontier 30 FFP: 4-20x50, Mil Pro 20x Reticle [No. 18530]c: at 4x to 20x: @ 7:55min | And illuminated at night and during daylight: @ 9:09min:

<https://www.youtube.com/watch?v=E9SLP7RiaWg>

<sup>27</sup> Hawke: Frontier 30 FFP: 4-20x50, Mil Pro 20x Reticle [No. 18530]: at 4x to 20x: @ 7:55min | And illuminated at night and during daylight: @ 9:09min:

<https://www.youtube.com/watch?v=E9SLP7RiaWg>

<sup>28</sup> Shepherd: BRS: 3-18x50 FFP: Reticle at min. and max. magnifications:

BRS-MIL Ret.: [not found yet]

BRS-MOA Ret.: [https://shepherdscopes.com/wp-content/uploads/2020/04/Reticle\\_BRS\\_MOA.jpg](https://shepherdscopes.com/wp-content/uploads/2020/04/Reticle_BRS_MOA.jpg)

Also: <https://shepherdscopes.com/wp-content/uploads/2021/03/BRS-3-18-Instructions.pdf>

<sup>29</sup> Element: Helix: 4-16x44 FFP: MIL and MOA Ret.: Reticle at min. and max. magnifications: In the *Manual* on the webpage, pp. 15-16:

<https://element-optics.com/wp-content/uploads/2021/07/HELIX-4-16x44-FFP-MANUAL-.pdf>

<sup>30</sup> Discovery: ED: 3-15x50 SFIR FFP: Reticle at all magnifications:

@ 3:04min (2018-06): <https://www.youtube.com/watch?v=kdlDJPEUtE>

@ 1:04min (2019-01): [https://www.youtube.com/watch?v=2fYkPgyy\\_oo](https://www.youtube.com/watch?v=2fYkPgyy_oo)

<sup>31</sup> Hawke: Frontier 34 FFP: 3-18x50, Mil Pro Ext. Reticle [No. 18620]: Reticle at all magnifications, illuminated: @ 2:02min:

<https://www.youtube.com/watch?v=3ztmkBiv4lk>

<sup>32</sup> Athlon: Ares ETR UHD 3-18x50 FFP:

APRS6 MIL Ret.: Reticle at min. and max. magnification:

<https://newsite.athlonoptics.com/product/ares-etr-3-18x50-aprs6-ffp-ir-mil-uhd/>

APLR6 MOA Ret.: Reticle at min. and max. magnification:

<https://newsite.athlonoptics.com/product/ares-etr-3-18x50-aplr6-ffp-ir-moa-uhd/>

<sup>33</sup> Riton: 7 Conquer: 3-18x50 FFP:

Reticle Subtensions:

T3 MIL Ret.: <https://ritonoptics.com/wp-content/uploads/2019/12/7Conquer3-18x50.RitonOptics.ReticleSubtensions.jpg>

PSR MIL Ret.: <https://ritonoptics.com/wp-content/uploads/2019/12/7-Conquer-3-18x50-PSR-PSR-02.jpg>

<sup>34</sup> Element: Titan: 3-18x50 FFP:

MIL APR-2D Ret.: Reticle at all magnifications: @ 14:11min and IR @ 8:17min

<https://www.youtube.com/watch?v=NY5K9qED3RU>

Reticle at min. and max. magnification: Brochure p. 15:

[https://element-optics.com/wp-content/uploads/2022/07/5x7-TITAN-3-18x50-MANU\\_AL\\_Ir.pdf](https://element-optics.com/wp-content/uploads/2022/07/5x7-TITAN-3-18x50-MANU_AL_Ir.pdf)

MOA APR-2D Ret.: Reticle at min. and max. magnification: Brochure p. 16:

[https://element-optics.com/wp-content/uploads/2022/07/5x7-TITAN-3-18x50-MANU\\_AL\\_Ir.pdf](https://element-optics.com/wp-content/uploads/2022/07/5x7-TITAN-3-18x50-MANU_AL_Ir.pdf)

<sup>35</sup> Meopta: Optica6: 3-18x56 RD FFP: Reticle Subtensions:

[https://www.meoptasportsoptics.com/Aton/FileRepository/aton\\_file\\_repository\\_HtmlEditorRepositoryDoc/Root/Reticles/reticle-MRad1-RD.pdf](https://www.meoptasportsoptics.com/Aton/FileRepository/aton_file_repository_HtmlEditorRepositoryDoc/Root/Reticles/reticle-MRad1-RD.pdf)

<sup>36</sup> Arken: EPL4: 4-16x44 FFP:

MIL VHR: Reticle Subtensions:

[https://www.arkenopticsusa.com/\\_ipx/w\\_1920,q\\_100/https%3A%2F%2Fcdn.sanity.io%2Fimages%2Fu57cw5zd%2Fproduction%2Fdaa6661e721237bec2a01cf12962abab2540216-4005x4005.png%3Fauto%3Dformat&at?url=https%3A%2F%2Fcdn.sanity.io%2Fimages%2Fu57cw5zd%2Fproduction%2Fdaa6661e721237bec2a01cf12962abab2540216-4005x4005.png%3Fauto%3Dformat&w=1920&q=100](https://www.arkenopticsusa.com/_ipx/w_1920,q_100/https%3A%2F%2Fcdn.sanity.io%2Fimages%2Fu57cw5zd%2Fproduction%2Fdaa6661e721237bec2a01cf12962abab2540216-4005x4005.png%3Fauto%3Dformat&at?url=https%3A%2F%2Fcdn.sanity.io%2Fimages%2Fu57cw5zd%2Fproduction%2Fdaa6661e721237bec2a01cf12962abab2540216-4005x4005.png%3Fauto%3Dformat&w=1920&q=100)

MOA VHR: Reticle Subtensions:

[https://www.arkenopticsusa.com/\\_ipx/w\\_1920,q\\_100/https%3A%2F%2Fcdn.sanity.io%2Fimages%2Fu57cw5zd%2Fproduction%2F3917883977bc6e2f37f55eab92830f303f99d20d-4005x4005.png%3Fauto%3Dformat?url=https%3A%2F%2Fcdn.sanity.io%2Fimages%2Fu57cw5zd%2Fproduction%2F3917883977bc6e2f37f55eab92830f303f99d20d-4005x4005.png%3Fauto%3Dformat&w=1920&q=100](https://www.arkenopticsusa.com/_ipx/w_1920,q_100/https%3A%2F%2Fcdn.sanity.io%2Fimages%2Fu57cw5zd%2Fproduction%2F3917883977bc6e2f37f55eab92830f303f99d20d-4005x4005.png%3Fauto%3Dformat?url=https%3A%2F%2Fcdn.sanity.io%2Fimages%2Fu57cw5zd%2Fproduction%2F3917883977bc6e2f37f55eab92830f303f99d20d-4005x4005.png%3Fauto%3Dformat&w=1920&q=100)

<sup>37</sup> Apex: The Hunter 3-15x44: Reticle at 15x:

<https://apexoptics.co/hunter3-15/#reticle>

## Notes on Reticles in Section 3: 6-24x | over 20x top end, at least 6x or less on the bottom

### Notes About Different Scopes – N1, N2, N3, etc.:

**N1:** Sightron ExacTrack turret adjustment system: Though the turrets of the indicated scope are capped, they are made for dialing, because they use the same ExacTrack turret adjustment system as the uncapped scopes of the following series (as of the 2012 and 2022 catalog): S-TAC | SVIII | S6 | SV | SIII | SII | SII Big Sky  
→ Dialing Turrets (capped w/ <sup>N1</sup>)

**N2:** This has been confirmed by various shooters on Snipers Hide. Riton, upon insistant request sent them a turret without 0-stop in order to be able to use the full elevation adjustment. It seems that a bit of grinding can achieve the same without asking Riton.

<https://www.snipershide.com/shooting/threads/riton-x7-question.7169618/#post-10871354>

**N3:** Not daylight bright.

Review EPIK ARMS, @ 10:42min: <https://www.youtube.com/watch?v=JhR4kNjZJXg>

**N4:** This scope has “Gen. 2” in its name, as it belongs to the second generation of its series – but is *not the second iteration of this particular scope* with this particular magnification range and objective diameter.

### Reticles: Footnotes: Links for Views or Videos of FFP Reticles at Different Magnifications

Note on more detailed reticle diagrams:

- Athlon: Each scope on their homepage includes detailed diagrams: <https://athlonoptics.com>
- Discovery: many scopes reticles are listed here: <https://discoveryoptics.co.uk/reticles/>

<sup>1</sup> Discovery: HD/34mm: 4-24x50 FFP: Reticle at all magnifications: @ 4.56min:

<https://www.youtube.com/watch?v=DerSb0Y-d34>

<sup>2</sup> Vector: Taurus: 5-30x56 FFP: Reticle at all magnifications: @ 10:04min:

<https://www.youtube.com/watch?v=xV6m6OUR33c>

Reticle at all magnifications, in front of a favorable background:

<https://www.youtube.com/watch?v=pQ82hBoSwdw>

<sup>3</sup> Discovery: HD/34mm: 5-30x56 FFP:

Reticle at all magnifications, in front of a non-favorable background: @ 1:51min:

<https://www.youtube.com/watch?v=b4EF9OMRv2M>

Reticle at all magnifications: @ 29.55min:

<https://www.youtube.com/watch?v=PQSVqejaEKE>

Illuminated Reticle at all magnifications, but no non-illuminated view: @ 1:23min:

<https://www.youtube.com/watch?v=31y22fzGb1M>

<sup>4</sup> Discovery: HD: 5-25x50 FFP: Illuminated Reticle at all magnifications, but no non-illuminated view: @ 4:29

<https://www.youtube.com/watch?v=SJZNGszt0E4>

non-illuminated view: @ 2.35min: <https://www.youtube.com/watch?v=zR9mUevdVX0>

<sup>5</sup> Athlon: Midas TAC: Reticle at min. and max. magnification:

- MIL: APRS2 Reticle: <https://athlonoptics.com/product/midas-tac-6-24x50-aprs2-ffp-mil-scope/>
- MIL Grid: APRS3 Reticle: <https://athlonoptics.com/product/midas-tac-6-24x50-aprs3-ffp-mil-scope/>
- MOA: APLR4 Reticle: <https://athlonoptics.com/product/midas-tac-6-24x50-aplr4-ffp-moa-scope/>

<sup>6</sup> Athlon: Helos BTR: Reticle at min. and max. magnification:

- APMR MIL Grid: <https://athlonoptics.com/product/rifle-scopes-helos-btr/>
- APLR2 MOA: <https://athlonoptics.com/product/rifle-scopes-helos-btr-3/>

<sup>7</sup> Discovery: ED: 6-24x50 FFP: Reticle at all magnifications: @ 6.44min:

<https://www.youtube.com/watch?v=1Ph66qud50M>

<sup>8</sup> Vortex: Diamondback: 6-24x50 FFP: Reticle at all magnifications: @ 6.55min:

<https://www.youtube.com/watch?v=weHwC3amwfE>

<sup>9</sup> Blackhound: Genesis: 6-24x50 FFP: Reticle at min. and max. magnification:

- Alpha MIL reticle: Owner's Manual: <https://www.blackhoundoptics.com/product/genesis-6-24x50-ffp-mil/>
- Ascent MOA reticle: <https://www.blackhoundoptics.com/product/genesis-6-24x50-ffp-moa/>

<sup>10</sup> Hawke: Sidewinder: 30 SF FFP: 6-24x56 [No. 17420]: Reticle at min. and max. magnification:

<https://us.hawkeoptics.com/sidewinder-30-sf-ffp-riflescopes.html>

<sup>11</sup> Falcon: S18i 3-18x50 FFP: Reticle at all magnifications: @ 2:06min:

<https://www.youtube.com/watch?v=RGmnOFp2fUU>

<sup>12</sup> Falcon: F30 6-24x50 FFP: Reticle at 6x magnification (24x at the mfctr's webpage): @ 5:33min:

<https://www.youtube.com/watch?v=swZJkEM76hw>

<sup>13</sup> Athlon: Argos BTR Gen. 1: 6-24x50 FFP: Reticle at min. and max. magnifications:

- APMR MIL reticle: <https://athlonoptics.com/product/rifle-scope-argos-6-24x50/>
- APLR2 MOA reticle: <https://athlonoptics.com/product/rifle-scopes-argos-6-24x50-atmr-ffp-ir-moa/>

<sup>14</sup> Hawke: Frontier 30 FFP: 5-25x56, Mil Pro 25x Reticle [No. 18540]: Reticle at 25x magnification: @ 5:25min

<https://www.youtube.com/watch?v=Gcud4IGjOA>

Cf. also footnote <sup>36</sup> for the same reticle in an FFP scope, and both reticles have to cover a 5-fold magnification range and thus will be similar at the bottom end of the magnification and the top end.

<sup>15</sup> Vector: Counterpunch: 6-25x56 FFP: Reticle at all magnifications:

<https://www.youtube.com/watch?v=E9qIPzpxvTQ>

<sup>16</sup> Vector: Marksman: 6-24x50 FFP: Reticle at all magnifications: @ 6:33min:

<https://www.youtube.com/watch?v=BnLJLvXVS0I>

and @ 4.47min: <https://www.youtube.com/watch?v=nepYkyfjpng>

<sup>17</sup> Vector: Tourex: 6-24x50 FFP: Reticle at various magnifications: @ 2.04min:

[https://www.youtube.com/watch?v=zD-HN8uU\\_fo](https://www.youtube.com/watch?v=zD-HN8uU_fo)

<sup>18</sup> MTC: King Cobra F1: 6-24x50 FFP: Reticle at all magnifications: @ 1:03min:

<https://www.youtube.com/watch?v=4RjMgVRqTM4>

<sup>19</sup> Aztec: Emerald: 5.5-25x50 FFP: Reticle at all magnifications: @ 4.21min:

<https://www.youtube.com/watch?v=8GwntsjAUTU>

<sup>20</sup> ACME Machine: 6-24x50 FFP: Reticle at 6x, 14x, and 24x magnifications: @ 1:55min:

<https://www.youtube.com/watch?v=LCl2SM7G2t0>

Reticle at 6x and 24x, MOA:

<https://www.acmemachine.com/optics-sights/6-24x50mm-first-focal-plane-tactical-rifle-scope-tr-mil-reticle/?variant=t=48625453254>

<sup>21</sup> Optisan: EVX: 6-24x50 FFP F1: Reticle at 6x, 15x, and 24x magnifications: @ 12:33min:

<https://www.youtube.com/watch?v=RuXmjOLxwNw>

<sup>22</sup> Swampfox: Kentucky Long: 5-30x56 FFP: MOA Reticle: Reticle at all magnification: @ 3:16min:

<https://www.youtube.com/watch?v=riYsEFsXYyw>

<sup>23</sup> Vector: Taurus: 4-24x50 FFP: Reticle at min. and max. magnification: @ 0:37min (play at slowest playback speed, the min. magnification will be shown only for a *split second* – but shows how thin the outside post really are, they are not really "medium":

<https://www.youtube.com/watch?v=rZRVuR5-398>

<sup>24</sup> Discovery: HD: 4-20x50 SFIR FFP: Reticle at all magnifications: @ 2:42min:

[https://www.youtube.com/watch?v=C1qBt7yg\\_ek](https://www.youtube.com/watch?v=C1qBt7yg_ek)

<sup>25</sup> Vector: Continental 34mm: 4-24x56 FFP: Reticle at all magnifications: @ 1:27min:

<https://www.youtube.com/watch?v=ceLSb2gkmbk>

<https://www.vectoroptics.com/data/uploads/2020/06/22/1592831142.jpg>

<sup>26</sup> Vector: Continental 34mm: 5-30x56 FFP: Reticle at all magnifications: @ 2:23min:

<https://www.youtube.com/watch?v=S97yza3Fph4>

Reticle at min. and max. magnification:

<https://www.vectoroptics.com/data/uploads/2020/06/22/1592831200.jpg>

<sup>27</sup> Nikko: Diamond FFP 30: 6-24x50: *Skeleton HMD Reticle* (No. NSFFP62450HMD) (the PRR Reticle is different and does have thick outside posts!): Reticle at different magnifications: 6x: @ 13:44min | 16x: @ 14:14min | 24x: 14:31min:

[https://www.youtube.com/watch?v=VOy2IWN7N\\_c](https://www.youtube.com/watch?v=VOy2IWN7N_c)

<sup>28</sup> Nikko: Diamond FFP: Nikko's *Skeleton HMD* reticle is used in several scopes and it does not have thick outside posts; the double lines used are just as thin as the rest of the reticle. Here is an example of the *Skeleton HMD* reticle, in the Diamond FFP 30mm 6-24x50: Reticle at different magnifications: 6x: @ 13:44min | 16x: @ 14:14min | 24x: 14:31min:

[https://www.youtube.com/watch?v=VOy2IWN7N\\_c](https://www.youtube.com/watch?v=VOy2IWN7N_c)

<sup>29</sup> Element: Titan: 5-25x56:

MIL Ret. APR-1C: Likely from 5x–25x – recommended to play it with slow motion: @ 3:46min

<https://www.youtube.com/watch?v=eSGzTPkRxZY>

MIL Ret. APR-1C + APR-1D: @ 5:02min:

<https://www.youtube.com/watch?v=2CmHU4lhfqQ>

MIL Ret. APR-1D: @ 6:50min:

<https://www.youtube.com/watch?v=0-C6DhTkDgw>

MOA Ret. EHR-1C + EHR-1D: @ 6:31min:

<https://www.youtube.com/watch?v=2CmHU4lhfqQ>

Manual of all four reticles, at 5x and 25x:

<https://element-optics.com/wp-content/uploads/2020/10/5x7-TITAN-MANUAL-Amended.pdf>

Difference between Titan and Nexus (more expensive – because of lighter and smaller, with higher quality)

<https://www.youtube.com/watch?v=W4qdh7-v2mM>

<sup>30</sup> Element: Helix: 6-24x50 FFP:

APR-2D MRAD: 6x and 24x: @ 1:01min and 1:16:

<https://www.youtube.com/watch?v=DgqOXpR2ymY>

APR-2D MOA: Reticle at all magnifications: @ 0:14min

<https://www.youtube.com/watch?v=YeWbkurV0o>

<sup>31</sup> Athlon: Argos BTR Gen. 2: 6-24x50 FFP: Reticle at min. and max. magnifications:

- APMR MIL reticle: <https://athlonoptics.com/product/argos-btr-gen2-6-24x50-apmr-ffp-ir-mil-copy/>

- APLR2 MOA reticle: <https://athlonoptics.com/product/argos-btr-gen2-6-24x50-atmr-ffp-ir-moa-copy/>

<sup>32</sup> Hi-Lux: PentaLux: TAC-VF 4-20x50 FFP G2: 20x: @ 0:20min:

[https://www.youtube.com/watch?v=NAbX\\_POUKgc](https://www.youtube.com/watch?v=NAbX_POUKgc)

@ 5:12min:

<https://www.youtube.com/watch?v=dvzUNANmNXs>

<sup>33</sup> Swampfox: Kentucky Long: 4-24x50 FFP:

Cf. the other models of this series that have the same six-fold magnification range, resulting in the same ratio of reticle increase/decrease:

Kentucky Long: 5-30x56 FFP: MOA Reticle: Reticle at all magnification: @ 3:16min:

<https://www.youtube.com/watch?v=riYsEFXYyw>

And also: Swampfox: Kentucky Long: 2-12x44 FFP: MOA: Reticle at 2x and at 12x(?):

[https://images-na.ssl-images-amazon.com/images/I/71%2B5YMUAxL.AC\\_SL1500.jpg](https://images-na.ssl-images-amazon.com/images/I/71%2B5YMUAxL.AC_SL1500.jpg)

[https://images-na.ssl-images-amazon.com/images/I/71aX%2BZ5aDFL.AC\\_SL1500.jpg](https://images-na.ssl-images-amazon.com/images/I/71aX%2BZ5aDFL.AC_SL1500.jpg)

<sup>34</sup> Swampfox: Warhawk: 5-25x56 FFP: MOA Reticle: at 5x: @ 1:04min (very briefly, use slo-mo, or pause it):

<https://www.youtube.com/watch?v=fFh5jleVgxE>

Cf. also the same reticle in the Kentucky Long models (several videos available; however the Warhawk has only a five-fold magnification range, as opposed to the Kentucky Long's six-fold, which means the reticle will increase/decrease 17% less).

<sup>35</sup> Shepherd: BRS: 5-25x56 FFP: Reticle at min. and max. magnifications:

BRS-MIL Ret.: <https://shepherdscopes.com/wp-content/uploads/2020/06/BRS-MIL-5-25x.jpg>

Also: <https://shepherdscopes.com/wp-content/uploads/2021/03/BRS-5-25-Instructions.pdf>

BRS-MOA Ret.: [not found yet]

<sup>36</sup> Hawke: Frontier 30 FFP: 4-20x50, Mil Pro 20x Reticle [No. 18530]: at 4x to 20x: @ 7:55min | And illuminated at night and during daylight: @ 9:09min:

<https://www.youtube.com/watch?v=E9SLP7RiaWg>

<sup>37</sup> Vortex: Razor HD Gen. II: 6-35x56, EBR-7D Mil Reticle: Reticle at all magnifications: @ 21:39min, and throughout the video, including illumination, and including comparisons to other scopes:

[https://www.youtube.com/watch?v=h\\_KRlbzOMKU](https://www.youtube.com/watch?v=h_KRlbzOMKU)

<sup>38</sup> Hawke: Frontier 34 FFP: 5-30x56, Mil Pro Ext. Reticle [No. 18640]:

Cf. another model of this series that has the same six-fold magnification range, resulting in the same ratio of reticle increase/decrease:

Hawke: Frontier 34 FFP: 3-18x50, Mil Pro Ext. Reticle [No. 18620]: Reticle at all magnifications, illuminated: @ 2:02min:

<https://www.youtube.com/watch?v=3ztmkBiv4lk>

<sup>39</sup> Riton: 5 Conquer: 5-25x50 FFP, MIL: Reticle at all magnifications: @ 8:52min and more at 12:39min:

<https://www.youtube.com/watch?v=kWvTDIOmMoc>

Reticle subtensions: MIL: <https://www.amazon.com/Riton-Optics-Conquer-5-25x50-MRAD/dp/B082DNFXKB>

Reticle subtensions: MOA: <https://www.amazon.com/Riton-Optics-Conquer-5-25x50-MOA/dp/B082DNVW2S>

<sup>40</sup> Riton: 5 Conquer: 4-28x56 FFP:

Reticle subtensions: MIL: Page 7: <https://ritonoptics.com/wp-content/uploads/2022/04/5-Conquer-4-28x56-Manual-2022.pdf>

Reticle subtensions: MOA: ?

<sup>41</sup> Riton: 7 Conquer: 4-32x56 FFP, MIL:

Reticle subtensions: <https://ritonoptics.com/wp-content/uploads/2019/12/7Conquer4-32x56.RitonOptics.ReticleSubtensions.jpg>

or: <https://ritonoptics.com/wp-content/uploads/2022/04/7-Conquer-4-32x56-Manual-2022.pdf>

Reticle at all magnifications, with and without illumination:

<https://www.youtube.com/watch?v=tpG7mCpb0v8>

Reticle thickness: The manual and the webpage do not give the thickness of the most basic reticle line, only subtensions and others. I had published in an earlier version of this Scope Specs Table a thickness of 0.02mil. This is wrong. The manual, when enlarged, shows this is the length of a short but both-sided hashline.

<https://ritonoptics.com/wp-content/uploads/2022/04/7-Conquer-4-32x56-Manual-2022.pdf>

Also, the video of the reticles does *not* give the impression that the reticle lines are 3 or 4 times thicker than most other scopes: <https://www.youtube.com/watch?v=tpG7mCpb0v8>

<sup>42</sup> Arken: EPL4: 6-24x50 FFP:

MIL VHR Subtensions:

[https://www.arkenopticsusa.com/\\_ipx/w\\_1920,q\\_100/https%3A%2F%2Fcdn.sanity.io%2Fimages%2Fu57cw5zd%2Fproduction%2Fdcaa6661e721237bec2a01cf12962abab2540216-4005x4005.png%3Fauto%3Dformat?url=https%3A%2F%2Fcdn.sanity.io%2Fimages%2Fu57cw5zd%2Fproduction%2Fdcaa6661e721237bec2a01cf12962abab2540216-4005x4005.png%3Fauto%3Dformat&w=1920&q=100](https://www.arkenopticsusa.com/_ipx/w_1920,q_100/https%3A%2F%2Fcdn.sanity.io%2Fimages%2Fu57cw5zd%2Fproduction%2Fdcaa6661e721237bec2a01cf12962abab2540216-4005x4005.png%3Fauto%3Dformat?url=https%3A%2F%2Fcdn.sanity.io%2Fimages%2Fu57cw5zd%2Fproduction%2Fdcaa6661e721237bec2a01cf12962abab2540216-4005x4005.png%3Fauto%3Dformat&w=1920&q=100)

MOA VHR Subtensions:

[https://www.arkenopticsusa.com/\\_ipx/w\\_1920,q\\_100/https%3A%2F%2Fcdn.sanity.io%2Fimages%2Fu57cw5zd%2Fproduction%2F3917883977bc6e2f37f55eab92830f303f99d20d-4005x4005.png%3Fauto%3Dformat?url=https%3A%2F%2Fcdn.sanity.io%2Fimages%2Fu57cw5zd%2Fproduction%2F3917883977bc6e2f37f55eab92830f303f99d20d-4005x4005.png%3Fauto%3Dformat&w=1920&q=100](https://www.arkenopticsusa.com/_ipx/w_1920,q_100/https%3A%2F%2Fcdn.sanity.io%2Fimages%2Fu57cw5zd%2Fproduction%2F3917883977bc6e2f37f55eab92830f303f99d20d-4005x4005.png%3Fauto%3Dformat?url=https%3A%2F%2Fcdn.sanity.io%2Fimages%2Fu57cw5zd%2Fproduction%2F3917883977bc6e2f37f55eab92830f303f99d20d-4005x4005.png%3Fauto%3Dformat&w=1920&q=100)

<sup>43</sup> Bushnell: Match Pro ED: 5-30x56 FFP MIL:

Subtensions: [https://www.bushnell.com/on/demandware.static/-/Library-Sites-HuntShootAccessoriesSharedLibrary/default/dw8dd6d632/productPdfFiles/MP53056DM-DMI\\_MatchPro\\_Manual\\_5LIM\\_1022\\_web.pdf](https://www.bushnell.com/on/demandware.static/-/Library-Sites-HuntShootAccessoriesSharedLibrary/default/dw8dd6d632/productPdfFiles/MP53056DM-DMI_MatchPro_Manual_5LIM_1022_web.pdf)

<sup>44</sup> Bushnell: Match Pro: 6-24x50 FFP MIL: Reticle at all magnifications, illuminated:

@ 9:43min: [https://youtu.be/XT8v6Uwr\\_FQ?t=583](https://youtu.be/XT8v6Uwr_FQ?t=583)

also: @ 13:47min: [https://youtu.be/XT8v6Uwr\\_FQ?t=827](https://youtu.be/XT8v6Uwr_FQ?t=827)

<sup>45</sup> Nightforce: NX8: 4-32x50 F1

MIL-C:

Note: The MIL-C reticle is sometimes wrongly depicted in seller webpages as not having thick outside posts.

Reticle at all magnifications: <https://www.youtube.com/watch?v=Sz2n06itBy4>

and also: @ 0:06min: <https://www.youtube.com/watch?v=nu2IE5DBJzo>

MIL-XT:

Important Note: The camera in this video was incorrectly set to automatic exposure. Therefore, the camera when filming a largely dark image (woods) increased the brightness of the image automatically. This caused the reticle lines to be washed out when they are in front of a light colored background (white target). When the scope magnification was increased, the image was less of the dark woods and more of the white target, which caused the camera to adjust the brightness again – this time appropriate to the white target at lower brightness. This can be observed when at 0:13min the reticle lines suddenly are not washed out anymore but become visible very nicely.

Reticle at all magnifications: @ 0:07min: <https://www.youtube.com/watch?v=0P2F3lfapRc>

MOAR F1:

Not found yet.

Subtensions: Note: The reticle subtensions on the Nightforce webpage are probably incorrect because the reticle manual they offer (as of Jan. 2, 2023) gives the subtension measurements only for scopes other than the NX8 4-32x50 F1.

<sup>46</sup> Falcon: Endura: 3.5-25x56 FFP

MIL: Diagram: <https://www.falconoptics.com/wp-content/uploads/2022/06/B28-Grid-Dot-B2GD-FFP.pdf>

MOA: Reticle at all magnifications: @ 11:30min: <https://youtu.be/MwpYgGiaSDI?t=691>

<sup>47</sup> Discoveryopt: ED-ELR: 5-40x56 SFIR FFP: at 5x, 15x, and 40x:

[http://www.discoveryopt.com/repository/image/3508bf75-9d1f-46a0-9fb0-503e708b2476.jpg\\_%7Bi%7Dxaf.jpg](http://www.discoveryopt.com/repository/image/3508bf75-9d1f-46a0-9fb0-503e708b2476.jpg_%7Bi%7Dxaf.jpg)

<sup>48</sup> Riton: 7 Conquer: 3-24x56 FFP: Reticle at all magnifications: @ 3:13min:

<https://www.youtube.com/watch?v=LZAgWSQJzt0>

<sup>49</sup> Apex: Rival: 4-32x56 FFP: Reticle at all magnifications: @ 1:58min:

<https://www.youtube.com/watch?v=3pPJKCqVmXE>

<sup>50</sup> Sightron: [S8=] SVIII: 4-40x56 FFP: no images found yet beyond the manufacturer's, here:

<https://sightron.com/collections/sviii-series>

However, a shooter on Snipers Hide has described the visibility of different reticle details at varying magnifications, here:

<https://www.snipershide.com/shooting/threads/magnification-whores-check-this-out.7086276/#post-9748119>

<sup>51</sup> Element: Theos: 6-36x56 FFP: Reticle at all magnifications: @ 2:26min:

[https://www.youtube.com/watch?v=WgO4wU8\\_7Es](https://www.youtube.com/watch?v=WgO4wU8_7Es)

<sup>52</sup> Falcon: Endura S40i: 5-40x56i ED FFP: Reticle at 5x and 40x:

<http://www.falconoptics.com/wp-content/uploads/2024/02/B9GDI-Diagram-with-40x-Email-Revised.jpg>

<sup>53</sup> Vector: Taurus Gen. 2: 3-24x56 ED FFP: Reticle at 3x and 24x:

<https://www.vectoroptics.com/products/view/id/SCFF-33.html>