

# Scope Specs Table

## **SHORT Scopes — and WIDE FoV Scopes — and 3-12x and 3-9x Scopes**

**Bottom Magni. = 3x or lower (or higher if at least a 30ft FoV)**

**Top Magni. = 9x to 12x (or more magni. if 13" short)**

**with 10y Parallax**

**Exposed Turrets**

**Holdoff Reticle**

**Under \$500 (most are under \$200-300)**

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

Bottom magnification = 3x or lower | if a scope has a higher bottom magnification it is listed *only if the scope has at least a FoV of 30ft at 100y (10m at 100m), or if the scope is 13" (33cm) or shorter*

Top magnification = between 9x and 12x | if a scope has a higher top magnification it is listed *only if the scope is 13" (33cm) or shorter*

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

Turrets = exposed; however, scopes with capped turrets that check the 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

### **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 (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): 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 target shooting*.

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 3ft at 10y (1m at 10m) (which translates to 30ft @100y as FoV is usually reported at 100y; it is color coded black).

The color coding 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.

**42ft or more** | **41-36ft** | 35-30ft | **29-23ft** | **22-17ft** | **16ft or less**

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

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

*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 ; ]

Prices updated as follows: 2021-06: all Hawke

**A little caution for 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.

|  |                                |                             |                 | Magni. → FoV   | → Eye Box                      | Exposed Turrets |                   |        |                        | Holdoff Reticle |             |             |             | Dimensions                               |                   |                                     |                 |                 |                    |   |  |
|--|--------------------------------|-----------------------------|-----------------|----------------|--------------------------------|-----------------|-------------------|--------|------------------------|-----------------|-------------|-------------|-------------|--|-------------------|-------------------------------------|-----------------|-----------------|--------------------|---|--|
| *in 2019, some 2020, 2021  | Price*: Low; Mfctr.'s in US \$ | War-ranty                   | Sprin-ger-Rated | Magni-fication | FoV: Field of View @ 100y (ft) | Obj. Dia (mm)   | Exit Pupils (mm)  | IR Y/N | Max. Elev. Adjmt (MOA) | 1 Click =       | 1 T. Turn = | Turrets in: | Reticle in: | FPP Thick 0/8 Posts? SFP Calibration at? | Enough Dots, No's | Line Thick-ness                     | 1" or 30mm Tube | Weight (oz) (g) | Length (inch) (cm) | Misc. + Reviewers' "Comments"                   |  |
| Brand: Series  | Part No.                       |                             |                 | SFP Scopes     |                                |                 |                   |        |                        |                 |             |             |             |  |                   |                                     |                 |                 |                    |   |  |
| Monstrum: V2 Tactical AO<br><small>No. S31242-M-RGAO-V2-1</small>  | ?; 100                         | 1y, R. O.Own                | ?               | 3-12x          | ?                              | 42              | ?                 | Y      | ??                     | ¼ inch          | 15(?) inch  | SMAOA≠      | ≠MIL        | SFP ?x                                   | D                 |                                     | 30              | 22.4 635g       | 11.5" 29c          | Capped Turrets! BUT Clickable                   |  |
| Nikko Stirling: C-More X10<br><small>No. NSCM22044</small> <b>Discont.</b>   | 410; ?                         | Life, O.Own                 | ?               | 2-20x          | 47-5                           | 44              | 22-2.2 calculated | Y      | 60                     | ¼ moa           | ?           | MOA≠        | ≠MIL        | SFP ?x                                   | D                 | ?                                   | 30              | 25.7 730g       | 13.3" 34c          |   |  |
| MTC: Viper Connect •SCB2 Ret.  | 400; —                         | Life <sup>30d</sup> R.O.Own | No              | 3-12x          | 61-17 super wide               | 24              | 8-2.0 calculated  | Y      | 120                    | ¼ inch          | 12 inch     | SMAOA=      | =MOA        | SFP ?x                                   | D                 | ?                                   | 30              | 21.2 600g       | 11.3" 29c          | ▲Super Short Eye Relief 1.2" (3cm)              |  |
| MTC: Viper Connect •SCB2 Ret.   Requires special \$58 mount  | 400; —                         | Life <sup>30d</sup> R.O.Own | No              | 3-12x          | 61-17 super wide               | 32              | 11-2.7 calculated | Y      | 120                    | ¼ inch          | 12 inch     | SMAOA=      | =MOA        | SFP ?x                                   | D                 | ?                                   | 30              | 22.9 650g       | 11.3" 29c          | ▲Super Short Eye Relief 1.2" (3cm)              |  |
| UTG: Accushot T8 Tactical: •MOA Ret.<br><small>No. SCP3-216UMOA</small>  | 178; 230                       | Life                        | Yes!!           | 2-16x          | 44-6                           | 44              | 22-2.7            | Y      | ??                     | ¼ inch          | 18 inch     | SMAOA=      | =MOA        | SFP 10x                                  | D, N              | ?                                   | 30              | 22.6 641g       | 12.4" 32c          |   |  |
| UTG: Accushot OP3: •MOA Ret.<br><small>No. OP3-GM3124UMOA</small>  | 198; 240                       | Life                        | Yes!!           | 3-12x          | 32-10                          | 44              | 13-3.9            | Y      | ??                     | ¼ moa           | 24 moa      | MOA=        | =MOA        | SFP 10x                                  | D, N              | ?                                   | 30              | 21.0 595g       | 10.1" 26c          | Locking Turrets                                 |  |
| UTG: Accushot OP3: •MOA Ret.<br><small>No. OP3-GM4164UMOA</small>  | 210; 255                       | Life                        | Yes!!           | 4-14x          | 26-8                           | 44              | 11-3.0            | Y      | ??                     | ¼ moa           | 24 moa      | MOA=        | =MOA        | SFP 10x                                  | D, N              | ?                                   | 30              | 21.5 610g       | 10.7" 27c          | Locking Turrets                                 |  |
| UTG: Accushot Precision<br><small>No. SCP3-UG312A0IEW</small>  | 142; 180                       | Life                        | Yes!!           | 3-12x          | 34-9                           | 44              | 13-3.9            | Y      | ??                     | ¼ moa           | ???         | MOA≠        | ≠MIL        | SFP 10x                                  | D                 | ?                                   | 30              | 22.7 643g       | 14.0" 36c          | Locking Turrets                                 |  |
| UTG: Bugbuster<br><small>No. SCP-M312A0IW = w/ Picatinny r. •No. SCP-M312A0D = w/ Dovetail r.</small>  | 125; 130                       | Life                        | Yes!!           | 3-12x          | 31-10                          | 32              | 10-2.7            | NO     | ??                     | ⅓"✓ inch        | 24 inch     | SMAOA≠      | ≠MIL        | SFP 10x                                  | D                 | ?                                   | 1"              | 12.7 360g       | 8.1" 21c           | Min. Parallax: 3y   Wire reticle                |  |
| UTG: Bugbuster<br><small>No. SCP-M392A0D = w/ Dovetail rings</small>   | 110; 125                       | Life                        | Yes!!           | 3-9x           | 37-12                          | 32              | 10-3.6            | NO     | ??                     | ⅓"✓ inch        | 24 inch     | SMAOA≠      | ≠MIL        | SFP 9x                                   | D                 | ?                                   | 1"              | 12.0 340g       | 7.9" 20c           | Min. Parallax: 3y   Wire reticle                |  |
| UTG: Bugbuster<br><small>No. SCP-M392A0IEW = red-green-blue IR + Picatinny rings   Right side turret is IR! •No. SCP-M392A0LWQ = 36-color IR + Picatinny rings</small> | 79; 108                        | Life                        | Yes!!           | 3-9x           | 38-14                          | 32              | 10-3.6            | Y      | ??                     | ¼"✓ inch        | 18 inch     | SMAOA≠      | ≠MIL        | SFP 9x                                   | D                 | ?                                   | 1"              | 14.0 397g       | 8.2" 21c           | Min. Parallax: 3y ▲Front Parallax! Wire reticle |  |
| Optisan: HX 4-12x40AO •MH12 Ret. <small>Code 37559</small> •EMD12 Ret. <small>Code 37522</small>   | ?; ?; 270, 200                 | Life                        | Yes (?)         | 4-12x          | 34-11                          | 40              | 10-3.3            | NO     | 40                     | ¼ moa           | 12 moa      | MOA≠        | ≠MIL        | SFP 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!!           | 3-12x          | 36-9                           | 32              | 10-2.6            | NO     | 66                     | 0.1 mil         | 10 mil      | MIL =       | =MIL        | SFP 10x                                  | D, mini Grid      | .05 <sup>mi</sup> .17 <sup>mo</sup> | 30              | 17.2 487g       | 9.5" 24c           | Capped Turrets! BUT Clickable                   |  |
| Optisan: EVX 3-12x44i •MIL-MH10X Ret.  | 380; 430                       | Life                        | ?               | 3-12x          | 37-9                           | 44              | 14-4.0            | Y      | 50                     | 0.1 mil         | 4.8 mil!!!  | MIL =       | =MIL        | SFP 10x                                  | D, (N)            | .05 <sup>mi</sup> .17 <sup>mo</sup> | 30              | 27.7 700g       | 13.3" 34c          |   |  |
| Athlon: Talos Mildot<br><small>No. 215004</small>  | 150; 180                       | Life, NoRec                 | ?               | 3-12x          | 34-9                           | 40              | 13-3.4            | NO     | 67                     | 0.1 mil         | 6 mil       | MIL =       | =MIL        | SFP ?x                                   | D                 | .05 <sup>mi</sup> .17 <sup>mo</sup> | 1"              | 16.2 459g       | 12.0" 30c          | Capped Turrets! BUT Clickable T Turn Counter    |  |
| Sightron: S-TAC [SFP] •Ret. MOA-3<br><small>No. 793139-260130</small>  | 450; 520                       | Life                        | Yes!!           | 3-16x          | 32-6                           | 42              | ?                 | NO     | 70                     | ¼ moa           | 15 moa      | MOA=        | =MOA        | SFP 16x                                  | D                 | .02 <sup>mi</sup> .08 <sup>mo</sup> | 30              | 23.5 666g       | 12.9" 33c          | Capped Turrets! BUT Clickable T Turn Counter    |  |

|  |                                |              |               | Magni. → FoV  | → Eye Box                       | Exposed Turrets |                 |        |                        | Holdoff Reticle |             |             |             | Dimensions                               |                   |                                      |                 |                 |                    |  |
|--|--------------------------------|--------------|---------------|---------------|---------------------------------|-----------------|-----------------|--------|------------------------|-----------------|-------------|-------------|-------------|--|-------------------|--------------------------------------|-----------------|-----------------|--------------------|--|
| *in 2019, some 2020, 2021  | Price*: Low; Mfctr.'s in US \$ | Warranty     | Spring-Loaded | Magnification | FoV = Field of View @ 100y (ft) | Obj. Dia (mm)   | Exit Pupil (mm) | IR Y/N | Max. Elev. Adjnt (MOA) | 1 Click =       | 1 T. Turn = | Turrets in: | Reticle in: | Thick O/S Posts? FFP SFP Calibration at? | Enough Dots, No's | Line Thickness                       | 1" or 30mm Tube | Weight (oz) (g) | Length (inch) (cm) | Misc. + Reviewers' "Comments"  |
| Brand: Series Part No.   |                                |              |               |               |                                 |                 |                 |        |                        |                 |             |             |             |  |                   |                                      |                 |                 |                    |  |
| Bushnell: Nitro [not FFP!] •Deploy MOA SFP Ret. No. RN2104GS1 (black) No. RN2104GS1 Gun Metal Gray | 350; 450?                      | Life, NoRec  | ?             | 2.5-10        | 37-9                            | 44              | ?               | NO     | 50 or 60?              | ¼ moa           | 15 moa      | MOA =       | =MOA        | SFP 10x                                  | D                 | .06 <sup>mi</sup> .2 <sup>mo</sup>   | 30              | 23.9 678g       | 13.6" 35c          | Capped Turrets! BUT Clickable  |
| Bushnell: Engage No. REN21044DG  | 250; 343                       | Life, NoRec  | ?             | 2.5-10x       | 45-11                           | 44              | 17-4.4          | NO     | 50                     | ¼ moa           | 15 moa      | MOA =       | =MOA        | SFP ?x                                   | D                 |                                      | 30              | 19.3 547g       | 13.5" 35c          |  |
| Bushnell: Nitro [not FFP!] •Deploy MOA SFP Ret. No. RN3124GS1 (black) No. RN3124GS1 Gun Metal Gray | 400; 400                       | Life, NoRec  | ?             | 3-12x         | 30-8                            | 44              | ?               | NO     | 60                     | ¼ moa           | 15 moa      | MOA =       | =MOA        | SFP 12x                                  | D                 | .06 <sup>mi</sup> .2 <sup>mo</sup>   | 30              | 24.2 687g       | 13.7" 35c          | Capped Turrets! BUT Clickable  |
| Hawke: Airmax 30 SF •AMX IR Ret. No. 13300 Discontinued  | 374; 429                       | Life, R. Own | Yes!!         | 3-12x         | 31-8                            | 50              | 17-4.0          | Y, N   | 95                     | ¼ moa           | 15 moa      | MOA ≠       | ≠MIL        | SFP 10x                                  | D                 | ?                                    | 30              | 27.5 780g       | 13.6" 35c          |  |
| Bushnell: Engage No. REN31242DG  | 243; 328                       | Life, NoRec  | ?             | 3-12x         | 30-6                            | 42              | ?               | NO     | 50                     | ¼ moa           | 15 moa      | MOA =       | =MOA        | SFP ?x                                   | D                 |                                      | 30              | 19.5 553g       | 14.0" 36c          |  |
| Vector: Paragon Gen. 2 No. SCOM-25 ≠ Gen. 1 No. SCOM-11 → NO!                                      | ?; 360                         | 5y, Rec.     | ?             | 3-15x         | 37-8                            | 50              | 8-3.3           | Y      | 85                     | 0.1 mil         | 8 mil       | MIL =       | =MIL        | SFP 10x                                  | D, N              | ?                                    | 30              | 22.0 625g       | 13.2" 34c          |  |
| Hawke: Airmax 30 SF Compact No. 13220  | 395; 459                       | Life, R. Own | Yes!          | 6-24x         | 22-5                            | 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! Turn Counter                                      |
| Hawke: Airmax 30 SF Compact No. 13210  | 390; 429                       | Life, R. Own | Yes!!         | 4-16x         | 33-8                            | 44              | 13-3.0          | Y      | 67                     | 0.1 mil         | 6 mil       | MIL =       | =MIL        | SFP 10x                                  | D                 | ?                                    | 30              | 21.9 621g       | 11.7" 30c          | Capped Turrets BUT Large for Clicking! T Turn Counter                                    |
| Riton: MOD5 Gen. 2 Wide FoV No. 019962523861   | 420; 520                       | Life, NoRec  | ?             | 4-16x         | 29-8                            | 50              | 12-3.1          | Y      | 80                     | ¼ moa           | 15 moa      | MOA =       | =MOA        | SFP 16x                                  | D                 | .06 <sup>mi</sup> .20 <sup>mo</sup>  | 30              | 23.0 652g       | 12.0" 30c          | Capped Turrets! BUT Clickable  |
| Vector: Veyron SFP No. SCOM-24   | 169; ?                         | 5y           | Yes!!         | 3-12x         | 35-9                            | 44              | 14-3.6          | NO     | 58                     | 0.1 mil         | 6 mil       | MIL =       | =MIL        | SFP 12x                                  | D                 | .025 <sup>mi</sup> .08 <sup>mo</sup> | 30              | 17.6 500g       | 9.7" 25c           | Eye Relief: 9.0-8.5cm  |
| Discovery: VT-3 4-16x44 SF SFP   | 150; 172                       | 3y           | Yes           | 4-16x         | 35-9                            | 44              | ?               | NO     | 65                     | 0.1 mil         | 6 mil       | MIL =       | =MIL        | SFP 10x                                  | D, N              | ?                                    | 30              | 19.4 550g       | 10.6" 27c          | Locking Turrets  |
| Discovery: VT-3 3-12x44 SF SFP No. 170612  | 145; 180                       | 3y           | Yes           | 3-12x         | 35-9                            | 44              | ?               | NO     | 68                     | 0.1 mil         | 6 mil       | MIL =       | =MIL        | SFP 10x                                  | D, N              | ?                                    | 30              | 18.4 521g       | 10.0" 25c          | Locking Turrets Eye Relief: 9.0-8.5cm  |
| Hawke: Airmax 30 Touch No. 13260   | 370; 450                       | Life, R. Own | Yes!!         | 3-12x         | 64-18 wide!                     | 32              | 10-2.7          | Y      | 250!                   | 0.1 mil         | 6 mil       | MIL =       | =MIL        | SFP 10x with a click at 10x              | D                 | ?                                    | 30              | 20.2 572g       | 10.5" 27c          | Capped Turrets BUT Large for Clicking! T Turn Counter ▲Super Short Eye Relief 1.2" (3cm) |
| Hawke: Airmax 30 SF Compact No. 13200  | 380; 419                       | Life, R. Own | Yes!!         | 3-12x         | 44-11                           | 40              |                 | Y      | 100                    | 0.1 mil         | 6 mil       | MIL =       | =MIL        | SFP 10x                                  | D                 | ?                                    | 30              | 20.8 589g       | 10.9" 28c          | Capped Turrets BUT Large for Clicking! T Turn Counter                                    |
| FFP Scopes – without Thick Outside Posts in the Reticle  |                                |              |               |               |                                 |                 |                 |        |                        |                 |             |             |             |  |                   |                                      |                 |                 |                    |  |
| Vector: Veyron 6-24x44 No. SCFF-23   | 198; 289                       | 5y           | Yes           | 6-24x         | 17-4                            | 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 580g       | 11.7" 30c          | Locking Turrets  |
| 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>3</sup> No Thick Posts          | D                 | .025 <sup>mi</sup> .08 <sup>mo</sup> | 30              | 20.0 570g       | 10.6" 27c          | Locking Turrets Eye Relief: 9.0-8.5cm  |
| Vector: Veyron FFP No. SCFF-21   | 174; ?                         | 5y           | Yes           | 3-12x         | 35-9                            | 44              | 14-3.6          | NO     | 58                     | 0.1 mil         | 6 mil       | MIL =       | =MIL        | FFP <sup>2</sup> No Thick Posts          | D                 | .025 <sup>mi</sup> .08 <sup>mo</sup> | 30              | 17.6 499g       | 9.7" 25c           | Locking Turrets Eye Relief: 9.0-8.5cm  |
| FFP Scopes – with Thick Outside Posts in the Reticle   |                                |              |               |               |                                 |                 |                 |        |                        |                 |             |             |             |  |                   |                                      |                 |                 |                    |  |
| Monstrum: FFP-G1 No. FFPS41444-M   | ?; 200                         | 1y, R. Own   | ?             | 4-14x         | ?                               | 44              | ?               | Y      | ??                     | 0.1 mil         | 6 mil       | MIL =       | =MIL        | FFP <sup>6</sup> Thick O/S Posts         | D, N              |                                      | 30              | 26.0 737g       | 13.0" 33c          | T Turn Counter   |
| Discovery: HS: 4-14x44 FFP No. 170402  | 200; 280                       | 3y           | Yes           | 4-14x         | 26-8                            | 44              | 11-3.1          | NO     | 55                     | ¼ moa           | 15 moa      | MOA =       | =MOA        | FFP Thick O/S Posts                      | D, N              | ?                                    | 30              | 25.0 750g       | 13.0" 33c          | Locking Turrets  |
| Discovery: HS: 4-14x44 FFP No. 170404  | 210; 290                       | 3y           | Yes           | 4-14x         | 26-8                            | 44              | 11-3.1          | NO     | 70                     | 0.1 mil         | 6? mil      | MIL =       | =MIL        | FFP Thick O/S Posts                      | D, N              | ?                                    | 30              | 20.1 570g       | 13.0" 33c          | Locking Turrets  |



|   |                                |                     |              | Magni. → FoV           | → Eye Box                       | Exposed Turrets |                |                            | Holdoff Reticle   |                |                   | Dimensions       |  |                    |   |                 |                 |                    |   |
|---|--------------------------------|---------------------|--------------|------------------------|---------------------------------|-----------------|----------------|----------------------------|-------------------|----------------|-------------------|------------------|--|--------------------|---|-----------------|-----------------|--------------------|---|
| *in 2019, some 2020, 2021   | Price*: Low; Mfctr.'s in US \$ | Warranty            | Springer-Rel | Magnification          | FoV = Field of View @ 100y (ft) | Obj. Dia (mm)   | Exit Pupil Y/N | IR Max. Elev. Adjnt. (MOA) | 1 Click =         | 1 T. Turn =    | Turrets in:       | Reticle in:      | Thick O/S Posts? FFP SFP Calibration at? | Enough Dots, No's  | Line Thickness  | 1" or 30mm Tube | Weight (oz) (g) | Length (inch) (cm) | Misc. + Reviewers' "Comments"   |
| Brand: Series Part No.  |                                |                     |              |                        |                                 |                 |                |                            |                   |                |                   |                  |  |                    |   |                 |                 |                    |   |
| Discovery: HI: 4-14x44 SF FFP No. 170209  | 330; ?                         | 3y                  | Yes          | 4-14x                  | 26-8                            | 44              | ?              | NO 55                      | 0.1 mil           | 6 mil          | MIL =             | =MIL             | FFP Semi Thick Posts                     | D                  | ?   | 30              | 26.5 750g       | 13.0" 33c          | Angle Indicator, MIL Range Finder                                       |
| Bushnell: Nitro [not SFP!] •Deploy MIL FFP Ret. No. RN2104BF2 •Deploy MOA FFP Ret. No. RN2104BF1 (black)   No. RN2104GF1 Gun Metal Gray | 500; ?                         | Life, NoRec         | ?            | 2.5-10                 | 37-9                            | 44              | ?              | NO 50 or 60?               | 0.1mi             | 5?mi           | MIL =             | =MIL             | FFP Thick O/S Posts                      | D, N, Grid         | 0.05 <sup>mi</sup> .17 <sup>mo</sup>                  | 30              | 23.9 678g       | 13.6" 35c          | Capped Turrets! BUT Clickable   |
|   |                                |                     |              |                        |                                 |                 |                |                            | 1/4mo             | 15mo           | MOA =             | =MOA             |  |                    | 0.04 <sup>mi</sup> .15 <sup>mo</sup>                  |                 |                 |                    |   |
| Bushnell: Nitro [not SFP!] •Deploy MIL FFP Ret. No. RN3124BF2 •Deploy MOA FFP Ret. No. RN3124BF1 (black)   No. RN3124GF1 Gun Metal Gray | 550; ?                         | Life, NoRec         | ?            | 3-12                   | 30-8                            | 44              | ?              | NO 60                      | 0.1mi             | 5?mi           | MIL =             | =MIL             | FFP Thick O/S Posts                      | D, N, Grid         | 0.05 <sup>mi</sup> .17 <sup>mo</sup>                  | 30              | 24.2 687g       | 13.7" 35c          | Capped Turrets! BUT Clickable   |
|   |                                |                     |              |                        |                                 |                 |                |                            | 1/4mo             | 15mo           | MOA =             | =MOA             |  |                    | 0.04 <sup>mi</sup> .15 <sup>mo</sup>                  |                 |                 |                    |   |
| Athlon: Talos BTR No. 215028  | 290; 360                       | Life, NoRec         | Yes!!        | 4-14x                  | 27-8                            | 44              | 11-3.3         | Y 67                       | 0.1 mil           | 5 mil          | MIL =             | =MIL             | FFP <sup>1</sup> Thick O/S Posts         | D, N               | 0.025 <sup>mi</sup> .08 <sup>mo</sup>                 | 30              | 23.6 669g       | 12.9" 33c          |   |
| Swampfox: Kentucky Long   | 418; 500                       | Life (50000 rounds) | ?            | 2-12x                  | 54-9                            | 44              | 9-2.6          | Y 120                      | 0.1mi 1/4mo       | 6 mi 15mo      | MIL = or MOA =    | =MIL or MOA      | FFP <sup>4</sup> Semi O/S Posts          | D, N, Grid         | ?   | 30              | 24.0 680g       | 12.4 32c           | Locking Turrets   |
| Discovery: ED: 4-16x50 SF No. 171103  | 360; ?                         | Life (not ED)       | Yes          | 4-16x                  | 31-8                            | 50              | 10-3.1         | NO 80                      | 0.1 mil           | 6 mil          | MIL =             | =MIL             | FFP Thick O/S Posts                      | D, N               | ?   | 30              | 22.1 625g       | 12.2" 31c          | Eye Relief: 10.0-8.5cm  |
| Sightmark: Citadel •w/ MR2 No. SM13039MR2 •w/ LR2 No. SM13039LR2 •w/ LR1 No. SM13039LR1   | 340-400; -                     | Life, 30d, 0.Own    |              | 3-18x                  | 33-6                            | 50              | 7-2.7          | Y 60                       | 0.1mi 0.1mi 1/4mo | 6 mi 6 mi 15mo | MIL = MIL = MOA = | =MIL = MIL = MOA | FFP Thick O/S Posts                      | D, N +Grid +Grid   | .03 <sup>mi</sup> .03 <sup>mi</sup> .12 <sup>mo</sup> | 30              | 26.1 740g       | 13.0" 33c          | Parallax says 15y, but is c.13y. Locking turrets. Throw lever.          |
| Swampfox (US): Warhawk •Sharpsh. Grid Ret. MIL No. TWK21044-3L •Sharpsh. Grid Ret. MOA No. TWK21044-3M                                  | ??; 559                        | Life (50000 rounds) |              | 2-10x                  | 63-12 wide!                     | 44              | 13-4.0         | Y 120                      | 0.1mi 1/4mo       | 10 mi 25mo     | MIL = MOA =       | =MIL = MOA       | FFP <sup>34</sup> Semi Thick Posts       | D, N, Grid         | ?   | 34              | 29.7 842g       | 12.7 32c           | Locking Turrets   |
| Athlon: Helos BTR Gen. 2 •AHMR2 MIL (not MOA which is BDC) No. 214105   | 450; 625                       | Life, NoRec         |              | 2-12x                  | 56-10                           | 42              | ?              | Y 105 = Elev. 83 = Wind.   | 0.1 mil           | 10 mil         | MIL =             | =MIL             | FFP <sup>6</sup> Thick O/S Posts         | D, N, Grid, Circle | 0.025 <sup>mi</sup> .08 <sup>mo</sup>                 | 30              | 25.4 720g       | 11.8" 30c          | Zero Stop Locking Turrets Eye Relief: 9.1cm                             |
| Discovery: VT-3: 4-16x44 SF FFP (≠50mm!) No. 170611   | 192; 280                       | 3y                  | Yes          | 4-16x                  | 26-7                            | 44              | 10-2.8         | NO 68                      | 0.1 mil           | 6 mil          | MIL =             | =MIL             | FFP Thick O/S Posts                      | D                  | ?   | 30              | 19.4 550g       | 10.6" 27c          | Good for Turret Bonnets (6 holes) Locking Turrets Eye Relief: 9.0-8.5cm |
| Discovery: VT-3: 3-12x44 SF FFP No. 170610  | 189; 229                       | 3y                  | Yes          | 3-12x                  | 35-9                            | 44              | ?              | NO 68                      | 0.1 mil           | 6 mil          | MIL =             | =MIL             | FFP Thick O/S Posts                      | D                  | ?   | 30              | 18.4 521g       | 10.0" 25c          | Good for Turret Bonnets (6 holes) Locking Turrets Eye Relief: 9.0-8.5cm |
| Discovery: HD: 3-12x44 SFIR FFP No. ???   | 180; 200                       | 3y                  | Yes          | 3-12x                  | 35-8                            | 44              | 15-3.7         | Y 80                       | 0.1 mil           | 6 mil          | MIL =             | =MIL             | FFP Thick O/S Posts                      | D, N, Grid         | ?   | 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                            | 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 → ▲ = Problem for Tactacam!       |
|   |                                |                     |              |                        |                                 |                 |                |                            |                   |                |                   |                  |  |                    |   |                 |                 |                    |   |
| Falcon: S18i FFP → For comparison only 2019   | 343; 380                       | 10y, 0Own           | Yes!!        | 3-18x                  | 39-7                            | 50              | 16-2.8 calc.   | Y 90                       | 0.1 mil           | 10 mil         | MIL =             | =MIL             | FFP Thick O/S Posts                      | D, N               | 0.04 <sup>mi</sup> .14 <sup>mo</sup>                  | 30              | 31.1 882g       | 14.6" 37c          | T Turn Counter  |
| Brand: Series Part No.  | Price*: Low; Mfctr.'s in US \$ | Warranty            | Springer-Rel | Magnification          | FoV = Field of View @ 100y (ft) | Obj. Dia (mm)   | Exit Pupil Y/N | IR Max. Elev. Adjnt. (MOA) | 1 Click =         | 1 T. Turn =    | Turrets in:       | Reticle in:      | Thick O/S Posts? FFP SFP (Calibration)   | Enough Dots, No's  | Line Thickness  | 1" or 30mm Tube | Weight (oz) (g) | Length (inch) (cm) | Misc. + Reviewers' "Comments"   |
| *in 2019, some 2020, 2021   |                                |                     |              | Magni. → FoV → Eye Box | Exposed Turrets                 |                 |                | Holdoff Reticle            |                   |                |                   |                  |  |                    |   |                 |                 |                    |   |

## Footnotes: Links for Views/ 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%2B5YMUAXfL.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/>