

# Scope Specs Table

## **SHORT 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 13.2" short)**

**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 – Field of view (FoV) = 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*.

Also listed are *longer scopes* if they have a 2x bottom magnification and at least a 12x top magnification.

Top magnification = between 9x and 12x (with a couple of exceptions for high-feature LPVO's) | If a scope has a higher top magnification it is listed *only if the scope is 13.2" (33.5cm) or shorter*.

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

### **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 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).



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 and/or models updated as follows: 2021-06: all Hawke | 2023-07: Discoveryopt, aka Discovery | Primary Arms

## 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.

				Magni. → FoV	→ Eye Box	Exposed Turrets				Holdoff Reticle				Dimensions			Misc. + Reviewers' "Comments"			
*in 2019, some 2020, 2021, 2022, 2023	Price*: Low; Mfctr.'s in US \$	Warranty	Springer-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? SEP Calibration at?	Enough Dots, No's, Grid Center Dot	Line Thickness	1" or 30mm Tube	Weight (oz) (g)	Length (inch) (cm)	
Brand: Series	Part No.																			
<b>SFP Scores</b>																				
Monstrum: V2 Tactical AO <small>No. S31242-M-RGA0-V2-1</small>	?; 100	1y, R. O.Own	?	3-12x	?	42	?	Y	??	1/4 inch	15(?) inch	S/MOA ≠ MIL	SFP ?x	D	?	?	30	22.4 635g	11.5" 29c	Capped Turrets! BUT Clickable
Nikko Stirling: C-More X10 <small>Discont. No. NSCM22044</small>	410; ?	Life, O.Own	?	2-20x	47-5	44	22-2.2 calculated	Y	60	1/4 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	1/4 inch	12 inch	S/MOA = 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	1/4 inch	12 inch	S/MOA = MOA	SFP ?x	D	?	?	30	22.9 650g	11.3" 29c	▲ Super Short Eye Relief 1.2" (3cm)
UTG: Accushot T8 Tactical: • MOA Ret. <small>No. SCP3-216UMOA</small>	178; 230	Life	Yes!!	2-16x	44-6	44	22-2.7	Y	??	1/4 inch	18 inch	S/MOA = MOA	SFP 10x	D, N	?	?	30	22.6 641g	12.4" 32c	
UTG: Accushot OP3: • MOA Ret. <small>No. OP3-GM3124UMOA</small>	198; 240	Life	Yes!!	3-12x	32-10	44	13-3.9	Y	??	1/4 moa	24 moa	MOA = MOA	SFP 10x	D, N	?	?	30	21.0 595g	10.1" 26c	Locking Turrets
UTG: Accushot OP3: • MOA Ret. <small>No. OP3-GM4164UMOA</small>	210; 255	Life	Yes!!	4-16x	26-8	44	11-3.0	Y	??	1/4 moa	24 moa	MOA = MOA	SFP 10x	D, N	?	?	30	21.5 610g	10.7" 27c	Locking Turrets
UTG: Accushot Precision <small>No. SCP3-UG312A0IEW</small>	142; 180	Life	Yes!!	3-12x	34-9	44	13-3.9	Y	??	1/4 moa	???	MOA ≠ MIL	SFP 10x	D	?	?	30	22.7 643g	14.0" 36c	Locking Turrets
UTG: Bugbuster <small>No. SCP-M312A0WQ = w/ Picatinny r. No. SCP-M312A0D = w/ Dovetail r.</small>	125; 130	Life	Yes!!	3-12x	31-10	32	10-2.7	NO	??	1/3" inch	24 inch	S/MOA ≠ MIL	SFP 10x	D	?	?	1"	12.7 360g	8.1" 21c	Min. Parallax: 3y Wire reticle
UTG: Bugbuster <small>No. SCP-M392A0D = w/ Dovetail rings</small>	110; 125	Life	Yes!!	3-9x	37-12	32	10-3.6	NO	??	1/3" inch	24 inch	S/MOA ≠ MIL	SFP 9x	D	?	?	1"	12.0 340g	7.9" 20c	Min. Parallax: 3y Wire reticle
UTG: Bugbuster <small>No. SCP-M392A0LWQ = 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	??	1/4" inch	18 inch	S/MOA ≠ MIL	SFP 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	4-12x	34-11	40	10-3.3	NO	40	1/4 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-G4Ai12X Code 37570	380; 430	Life	Yes	3-12x	36.7-9.2	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		
Optisan: EVE 3-12X56Pi • MIL-G4Ai12X Ret. Code 37570 Only the Pi-model has 10y Parallax!	410; 460	Life	Yes	3-12x	36.7-9.2	56	19-4.5	Y	50	0.1 mil	6 mil	N/A	SFP 12x	None, CD		30	27.2 772g	13.5" 34c	No Hold-Off Reticle! For 12x Extremely Large Objective Lens	
Optisan: CP 4-16x40 Minimized Parallax.	340; 390	Life	Yes!!	4-16x	26 <sup>2</sup> -6.5	40	10-2.5	NO	62	0.1 mil	10? mil	MIL = MIL	SFP 10x	D, mini Grid	.05 <sup>mi</sup> .17 <sup>mo</sup>	30	18.7 530g	10.6" 27c	Capped Turrets! BUT Clickable	
Athlon: Talos Mildot <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	450; 520	Life	Yes!!	3-16x	32-6	42	?	NO	70	1/4 moa	15 moa	MOA = MOA	SFP 16x	D	.02 <sup>mi</sup> .08 <sup>mo</sup>	30	23.5 666g	12.9" 33c	Dialing Turrets (capped w/ N <sup>1</sup> ) T Turn Counter	
Bushnell: Nitro [not FFP!] • Deploy MOA SFP Ret. <small>No. RN2104GS1 (black) No. RN2104GS1 Gun Metal Gray</small>	350; 450?	Life, NoRec	?	25-10x	37-9	44	?	NO	50 or 60?	1/4 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	

				Magni. → FoV → Eye Box				Exposed Turrets				Holdoff Reticle				Dimensions				
*in 2019, some 2020, 2021, 2022, 2023	Price*: Low; Mfctr.'s in US \$	Warranty	Springer-Rated	Magnification	FoV <sub>Field of View @ 100y (ft)</sub>	Obj. Dia (mm)	Exit Pupil (mm)	IR Y/N	Max. Elev. Adjmt. (MOA)	1 Click =	1 T. Turn =	Turrets in:	Reticle in:	Thick O/S Posts? SFP Calibration at?	Enough Dots, No's, Grid Center Dot	Line Thickness	1" or 30mm Tube	Weight (oz) (g)	Length (inch) (cm)	Misc. + Reviewers' "Comments"
Bushnell: Engage No. REN21044DG	250; 343	Life, NoRec.	?	25-10x	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. RN31248S1 (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	374; 429	Life, R. 0Own	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	Discontinued
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 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. 0Own	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. 0Own	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: Continental X8 ED Tactical No. SCOT-199	?; 649	Life		2-16x	61-7.7	44	6 <sup>5</sup> -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 HDLR • Ret. APR-1C MRAD No. 50053 • Ret. APR-1C MOA No. 50054	589; ?	Life, NoRec.		2-16x	60-7 <sup>5</sup>	50	8 <sup>5</sup> -3.1	Y	100 <sup>wind 45moa</sup>	0.1mi ¼mo	6mi 15mo	MIL = MOA =	=MIL =MOA	SFP 16x	D, N, CD	.03 <sup>mi</sup> ?	30	27.1 770g	13.4" 34c	Turn Counter
MTC: Copperhead F2 [SFP]	480; ?	Life <sup>30d</sup> R. 0Own	?	4-16x	24-6	44	?	Y	40	0.1 mil	6 mil	MIL =	=MIL	SFP 10x	D, N, Wind. 1mil!!!	?	30	24.3 590g	10.8" 27c	Locking Turrets
MTC: Copperhead F2 [SFP]	427; ?	Life <sup>30d</sup> R. 0Own	?	3-12x	32-8	44	?	Y	40	0.1 mil	6 mil	MIL =	=MIL	SFP 10x	D, N, Wind. 1mil!!!	?	30	20.0 568g	9.8" 25c	Locking Turrets Eye Relief: 9cm
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
Hawke: Airmax 30 SF Compact No. 13200	380; 419	Life, R. 0Own	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
Hawke: Airmax 30 Touch No. 13260 Min. Parallax 8y. W/ eye cup, 3" sidewheel. <a href="https://hardairmagazine.com/reviews/hawke-airmax-30-touch-its-a-dedicated-pc-riflescope-with-big-benefits/">https://hardairmagazine.com/reviews/hawke-airmax-30-touch-its-a-dedicated-pc-riflescope-with-big-benefits/</a>	370; 450	Life, R. 0Own	Yes!!	3-12x	64-18 super wide!	32	10-2.7	Y	250! = 75mil = 13 rotations	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)
<b>FFP Scopes – without Thick Outside Posts in the Reticle</b>																				
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

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*in 2019, some 2020, 2021, 2022, 2023	Price*: Low; Mfctr.'s in US \$	Warranty	Springer-Rated	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, Grid Center Dot	Line Thickness	1" or 30mm Tube	Weight (oz) (g)	Length (inch) (cm)	
<b>FFP Scopes – with Thick Outside Posts in the Reticle</b>																				
Monstrum: FFP-G1 No. FFP541444-M	?; 200	1y, R. O.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
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	?	25-10x	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
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	?	3-12x	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
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 (US) Kentucky Long	418; 500	Life (50000 rounds)	?	2-12x	54-9	44	9-2.6	Y	120	0.1mi	6 mi	MIL = or	=MIL or	FFP <sup>1</sup> Semi O/S Posts	D, N, Grid	?	30	24.0 680g	12.4" 32c	Locking Turrets
UTG: Accushot Pro AS3 No. AS303FA2	?; ?	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
Discovery: ED: 4-16x50 SF No. 171103	360; 400	Life (for 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, Grid	?	30	22.1 625g	12.2" 31c	Locking Turrets
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	6 mi	MIL =	=MIL	FFP Thick O/S Posts	D, N +Grid +Grid	0.03 <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	62.6-12.5	44	13-4.0	Y	120	0.1mi	10 mi	MIL =	=MIL	FFP Semi Thick Posts	D, N, Grid	?	34	29.7 842g	12.7" 32c	Locking Turrets
Discoveryopt: ED-AR1  Eye box "smallish for 1x"	190; 200	Life	Yes	1-8x	133 -15.7	24	24-3.0 calculated	Y	130	0.1 mil	6 mil	MIL =	=MIL	FFP <sup>7</sup> Thick O/S Posts	D, N, Grid, CD	?	34	24.2 687g	11.4" 29c	Locking Turrets Min. Parallax 5y. Eye Relief: 10.2-8.7cm
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 <sup>8</sup> Thick O/S Posts	D, N, CD	?	30	16.6 470g	8.5" 22c	Locking Turrets Min. Parallax 5y. Eye Relief: 9.9-8.2cm Problem for scope cams and night vision clip-ons?
Arken: EPL4 • MIL VHR Ret. • MOA VHR Ret.	350, 300; 400	Life		4-16x	30-7 <sup>5</sup>	44	?	Y	86	0.1mi	8 mi	MIL =	=MIL	FFP <sup>8</sup> Thick O/S Posts	D, N, CD	0.03 <sup>mi</sup> .10 <sup>mo</sup>	30	23.7 672g	13.2" 34c	0-Stop; 3 screws to re-zero; T Turn Counter
Athlon: Helos BTR Gen. 2 <sup>M4</sup> • 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
Optisan: CP 4-16x40 F1 • MIL F1MRAD16 • MOA F1MOA16 Minimized Parallax	530; 650	Life	Yes!!	4-16x	26 <sup>2</sup> -6.5	40	10-2.5	NO	60	0.1 mil	10 mil	MIL =	=MIL	FFP Thick O/S Posts	D, mini Grid	0.06 <sup>mi</sup> .20 <sup>mo</sup> ?	30	18.7 530g	10.6" 27c	Capped Turrets! BUT Clickable
Discoveryopt: HD [A 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!

## 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%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/>

<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%2Fdaa6661e721237bec2a01cfd12962abab2540216-4005x4005.png%3Fauto%3Dformat?url=https%3A%2F%2Fcdn.sanity.io%2Fimages%2Fu57cw5zd%2Fproduction%2Fdaa6661e721237bec2a01cfd12962abab2540216-4005x4005.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%2Fdaa6661e721237bec2a01cfd12962abab2540216-4005x4005.png%3Fauto%3Dformat?url=https%3A%2F%2Fcdn.sanity.io%2Fimages%2Fu57cw5zd%2Fproduction%2Fdaa6661e721237bec2a01cfd12962abab2540216-4005x4005.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>