

SMARTTRACK3/M (-IF)



SMARTTRACK3/M is the latest version of the ART plug & play tracking solution for small volumes. Two tracking cameras and the controller are integrated in a compact housing. When delivered, SMARTTRACK3/M is pre-calibrated and may be used immediately. The compact size and the integrated controller make SMARTTRACK3/M the ideal mobile tracking system. The PoE power supply allows usage without separate power cable. Optionally SMARTTRACK3/M-IF is available, with a narrow bandpass filter for tracking in daylight conditions making applications possible such as in-car tracking.

Technical Data

General Camera Data			SMARTTRACK3/M		SMARTTRACK3/M-IF	
Image sensor			1280x1024 Pixel			
Frame rate (sensor)			150 Hz @ full frame, up to 240Hz with reduced tracking volume			
Image processing			integrated			
Status indicator			2 LEDs; dimmable			
IR source			high power LEDs, 850nm, adjustable in intensity (exempt group according to IEC62471-1)			
Filters			Longpass		Bandpass (IF)	
Effective transmission			795 - 1100 nm		845 - 859 nm	
Suppression in rejection regions:			avg. $> 10^4 - 10^5$		avg. $> 10^6$	
SMARTTRACK3/M-IF: Narrow bandpass filter for suppression of unwanted stray light / wavelengths (factor > 10 vs. standard SMARTTRACK3/M). Extended camera parameters to further improve daylight sensitivity in user-specific scenario available.						
Connectors			SMARTTRACK3/M		SMARTTRACK3/M-IF	
Data transfer & power supply			Single cable solution data: Gigabit Ethernet power: PoE (IEEE 802.3af-2003) via max. 100 m RJ45 cable (CAT5)			
Synchronization in / out			1x BNC: Video Signal (75 Ω), TTL, LVTTTL (in / out not simultaneously)			
Peripherals			1 x USB 2.0 (e.g. Radio Transceiver2/3, service access)			
Operating conditions			SMARTTRACK3/M		SMARTTRACK3/M-IF	
Cooling			passive, noiseless			
Temperature			0 ... 35° C			
Relative humidity			5 ... 85% (non-condensing)			
Power consumption			12 W			
Dimensions			SMARTTRACK3/M		SMARTTRACK3/M-IF	
Size (W x H x D)			approx. 280 x 40 x 90 mm			
Weight			approx. 1.0 kg			
Available lenses and operation modes						
Compatible lenses	Item number			Operation mode		
	SMARTTRACK3/M	SMARTTRACK3/M-IF		@ 150Hz	@ 180Hz	@ 240Hz
2.86 mm	V135121	V135131	Sensor resolution (pixels)	1280 x 1024	1280 x 880	1280 x 660
			FoV (horiz. x vert.) [deg]	135° x 102°	135° x 86°	135° x 62°
			Tracking range*	0.12m – 1.7 m (0.12m – 1.7 m) **		
3.5 mm	V135122	V135132	FoV (horiz. x vert.) [deg]	83° x 70°	83° x 62°	83° x 49°
			Tracking range*	0.3m – 2.3m (0.3m – 2.0m) **		

* based on 12 mm spherical passive markers: Higher ranges possible with larger or active markers

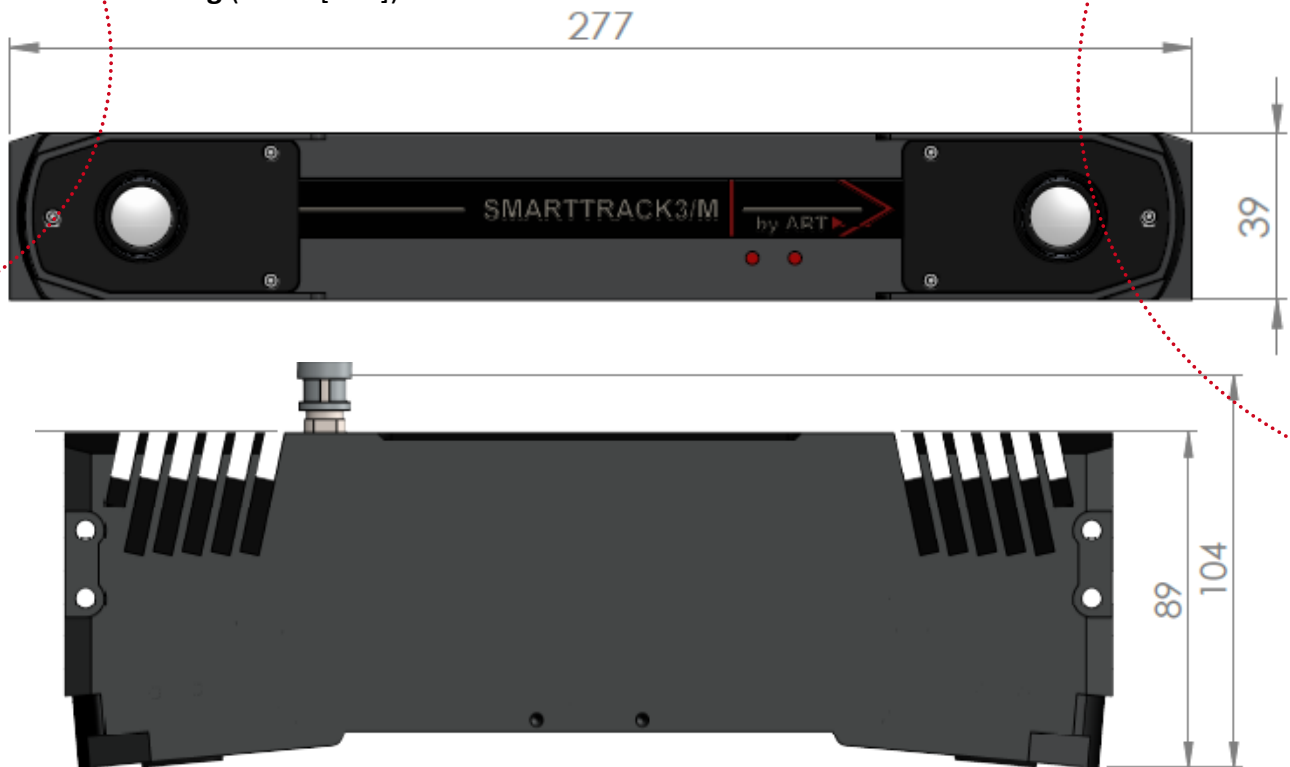
** in brackets: Tracking range for SMARTTRACK3/M-IF with bandpass filter with default sensitivity parameters

System latency	@ 150Hz	@ 180Hz	@ 240Hz
4 targets	9ms	8ms	6ms

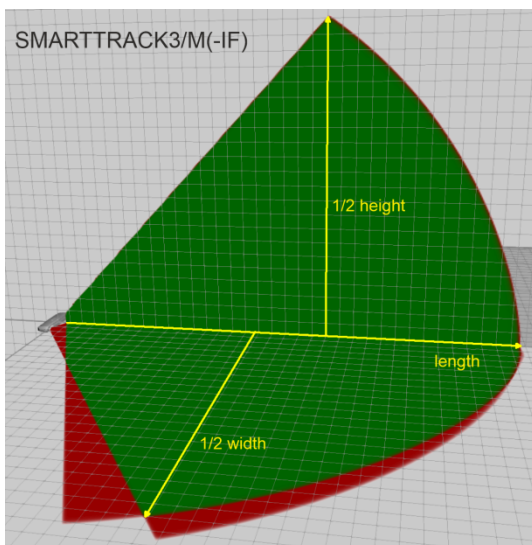
Certifications

- CE
- FCC Part 15 B, Class B
- TÜEV SÜED NRTL

Technical Drawing (units: [mm])



Tracking Area



Tracking Area	lens	length	½ width	½ height
SMARTTRACK3/M	2.86mm	0.12 - 1.7m	1.4m	1.0m
SMARTTRACK3/M	3.5mm	0.3 - 2.3m	0.9m	0.8m
SMARTTRACK3/M-IF	2.86mm	0.12 - 1.7m	1.2m	0.7m
SMARTTRACK3/M-IF	3.5mm	0.3 - 2.0m	0.7m	0.6m