



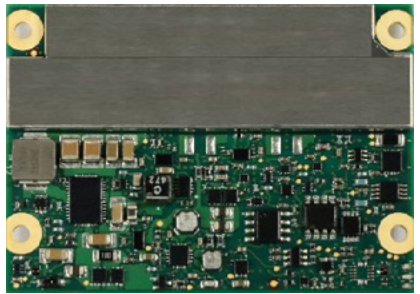
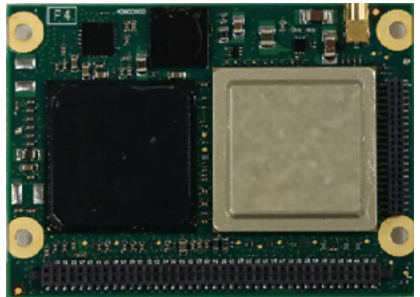
L3HARRIS®
FAST. FORWARD.

TRUTRAK-M TYPE II

M-Code GPS Receiver integrated with advanced, innovative software

PHYSICAL CHARACTERISTICS	
Size	2.45 L x 1.77 W x 0.374 H in
Weight	38 grams
Primary Voltage	3.3 V +/-200 mV
Auxiliary Voltage	3.3 V +/-200 mV
Temperature Operating Range	-40°C to +85°C
Digital Connector	Samtec SFM-140-L2-S-D-LC
RF Connector	Huber-Shuner 85-MMCX-50-0-1

SYSTEM CHARACTERISTICS	
Accuracy	
Pseudorange (PR)	< 2.59 m
Delta Range Rate (DRR)	< 0.03 m/s
Carrier Phase (CP)	< 3 mm (zero baseline)
Time (UTC)	< 52 ns
Sensitivity	
Cold Start	-140 dBm
Warm Start	-143 dBm
Hot Start	-143 dBm (Y), -140 dBm (M)
Tracking	-152 dBm
TTFF	
Hot Start	< 15 sec
Warm Start	≤ 90 sec (direct M/Y, one-day outage)
Cold Start	≤ 120 sec
Reacquisition	≤ 20 sec (15-minute outage)
Dynamics	
Maximum Velocity	> 250 m/s
Maximum Acceleration	> 20 m/s ²
Power Consumption	
Acquisition	< 2 W (average) < 5.5 W (peak)
Steady State Tracking	1.6 W
Standby	0.9 W
Time Maintenance	100 mW (Off ≤ 1 hr) 4.99 mW (Off > 1 hr)



Experience the pinnacle of performance with L3Harris' TruTrak-M Type II. Surpassing MGUE standards, this compact, lightweight and cost-effective marvel is powered by advanced software, providing high-rate precision mode, continuous L1 and L2 frequency tracking, upgraded anti-spoofing and thermal monitoring in extreme temperatures. This versatile Type II variant seamlessly integrates into ground systems including man-portable handheld and surface vehicles, as well as low-dynamic airborne platforms with high-altitude operating thresholds. Elevate your operations with unparalleled reliability and precision.

KEY FEATURES AND BENEFITS

- > **MGUE Compliant and Beyond:**
Advanced technology that surpasses standard MGUE compliance with enhanced accuracy, exceptional performance reliability and a broader range of functionality
- > **Comprehensive Signal Tracking:**
Tracks C/A, Y and M signals on both L1 and L2 frequencies for robust navigation
- > **High-Altitude Navigation:**
Accurate navigation at altitudes up to 45,720 meters
- > **Precision Delivery:** High-rate precision mode providing updates up to 10 Hz for accurate real-time measurement data
- > **Advanced Anti-Spoofing:**
Enhanced techniques to guard against signal tampering and spoofing
- > **Temperature Resilience:** Thermal monitoring for consistent performance in varied environments
- > **Compact Design:** Small form factor with robust connectivity, fitting seamlessly into operations
- > **Direct Signal Acquisition:**
Effortless direct acquisition of Y and M signals, streamlining functionality
- > **Future-Ready:** Field-reprogrammable design, supporting future feature updates and ahead-of-the-curve technology
- > **Security Certified:** Fully security certified and approved, supporting unclassified when keyed operations

HARDWARE INTERFACE	
Available IO	
UART	4 (921 KBps)
GPIO	Available as an option
SPI	Available as an option
SDLC/AMRAAM	Available as an option
Communication Ports	
4 CMOS	Up to 460 KBps
1 RS232	Up to 460 KBps
Additional Features	
Keying	EKMS

For direct inquiries, contact: NavSolutions@L3Harris.com

Learn more about the TRUTRAK-M TYPE II here: [M-Code Navigation Solutions](#)

TRUTRAK-M TYPE II

© 2025 L3Harris Technologies, Inc. | 11/2025 | L31343

NON-EXPORT CONTROLLED: THIS DOCUMENT CONSISTS OF INFORMATION THAT IS NOT DEFINED AS CONTROLLED TECHNICAL DATA UNDER ITAR PART 120.33 OR TECHNOLOGY UNDER EAR PART 772.

L3Harris Technologies is the Trusted Disruptor in the defense industry. With customers' mission-critical needs always in mind, our employees deliver end-to-end technology solutions connecting the space, air, land, sea and cyber domains in the interest of national security. Visit [L3Harris.com](https://www.l3harris.com) for more information.



1025 W. NASA Boulevard
Melbourne, FL 32919

[L3Harris.com](https://www.l3harris.com)