

Python

Ultra Compact, Multi-Purpose Tactical SatCom System

Python-5 and **Python-7** are ultra-compact, multi-purpose Ka-band mobile SATCOM systems based on advanced **Luneburg Lens technology**, delivering exceptional performance with minimal **SWaP** (size, weight, and power consumption) and low **RCS** while supporting **GEO, MEO** and **LEO** satellite constellations.



Python-5



Python-7

Tactical BLOS Communications

Robust Composite design, beyond-line-of-sight connectivity

High-Performance RF System

Superior gain, G/T, and EIRP in compact form

Consistent, Uninterrupted Links

Linear performance across all elevation angles with no scan losses

Optimized SWaP

Ultra-light, low-power design ideal for space- and weight-constrained platforms

Rapid Deployment

Auto-acquire and track for fast setup and hands-free operation

Satellites repointing time

Achieves 130° beam shifts in less than one second for agile operations

Compact Luneburg Lens Antennas

13 cm (5") and 18 cm (7") designs with EL electronically steerable beam

Broadband Mission Support

Handles high-speed data and video

Cybersecurity, GNSS-denied

Integrated cybersecurity, supports operation even in GNSS-denied environments

Rugged Non-metal Construction

Reduces weight and radar-cross-section for enhanced survivability

Fully Integrated Package

ACU, Tracking Receiver, IMU, IMF & LNB combined in one compact unit

Compatible with

UAVs, drones, ground vehicles, first responders, manned and unmanned surface and underwater vessels.



Specifications

Python-5

Python-7

Antenna Type	Luneburg Lens antenna	
Antenna Size	13 cm (5")	18 cm (7")
Stabilizer/Tracking Positioner	Elevation (Electronics beam) over Azimuth	
Elevation Angle Azimuth Range	5° to +100° Unlimited	
Frequency Range	TX: 29.00 - 31.00 GHz RX: 19.20 - 21.20 GHz	
G/T Typical (19.7GHz , 30° EL. Clear sky w/o Radome)	4.0 dB/K	7.0 dB/K
EIRP Typical @ 30GHz, w/o Radome, Incl. 16W BUC @ P-Rated-PSAT	37.0 dBW	39.0 dBW
Polarization	Circular (L/R)	
Satellites repointing time (assume 130 deg. scan)	Less than 1 Sec	
Tx Sidelobe	~ -25 dB	
Inst Bandwidth (does not depend on the scan angle)	The full frequency range	
System Power Consumption (Incl. 16W BUC) @ P-Rated-PSAT	~145W	
Terminal Size	H: 221mm (8.7") D: 165mm (6.5")	H: 277mm (10.9") D: 212mm (8.3")
Antenna system Weight (w/o BUC)	~ 2.5 Kg (6 Lb.)	~ 4.5 Kg (10 Lb.)
Operation Temperature	- 40°C to 60°C	
Composite Materials (low RCS)	YES	
Link with Satellite at Zenith	YES	
Supporting GEO/MEO/LEO (using Luneburg lens, single beams one system)	YES	

Notes: Larger BUCs are available
Specifications subject to change without notice

