



Features and Benefits

- 50-80% less SWaP than rigid antennas
- Throughput up to 210 Mb/s in dual stream
- Operation in C-Band or X-Band enables maximum battlefield agility
- Automatic antenna pointing & link alignment (ALA)
- Three person setup in less than 1 hour
- Single-Band Quad-Diversity system packs into a single light tactical vehicle
- AES 256 encryption FIPS 140-2, Level 2

GATR 2.4m Troposcatter

The 2.4m troposcatter system is formed by combining two industry-leading technologies—Cubic’s GATR 2.4m Inflatable System Antenna (ISA) and the Comtech Systems troposcatter software-defined radio technology.

Engineered to be deployed in austere environments, the rugged troposcatter system provides a high throughput tactical link capable of Line-Of-Sight (LOS) and Beyond-Line-Of-Sight (BLOS) communications utilizing diffraction and troposcatter paths.

The rugged low SWaP system is capable of being transported in a light tactical vehicle, and delivers high throughput links up to 210 Mb/s in a package significantly lighter than conventional tactical troposcatter systems.

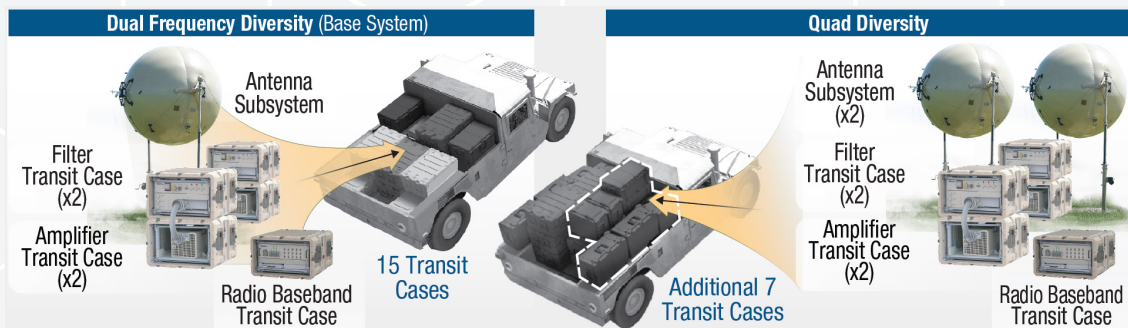
Support for C-Band or X-Band plus automatic antenna pointing and link alignment, combined with a three-person setup in less than one hour, ensures the Cubic troposcatter system delivers maximum battlefield agility in contested environments.

Type Designator: AN/TRC-245

2.4m Troposcatter System

Specifications

Performance Specifications		
Base System Setup Time	<60 Minutes (including Automatic Link Alignment), 3 Trained Operators, No Special Tools	
Supported Diversity Configurations	Base System (1 Antenna)	Plus Range Extension Kit (2 Antennas)
	Dual Polarization (1 Carrier) Dual Frequency (2 Carriers)	Quadruple Polarization-Space (1 Carrier) Quadruple Frequency-Space (2 Carriers)
Transit Cases	C- or X-Band: 13 Transit Cases Dual-Band: 15 Transit Cases	C- or X-Band: 20 Transit Cases Dual-Band: 22 Transit Cases
Operating Frequencies	C-Band	X-Band
	Low band: 4.40 GHz to 4.65 GHz High band: 4.75 GHz to 5.00 GHz	Low band: 7.1250 GHz to 7.3875 GHz High band: 7.4875 GHz to 7.7500 GHz
Maximum Transmission Rates (Full Duplex)	Single Stream: 105 Mbps Dual Stream: 210 Mbps	Single Stream: 70 Mbps Dual Stream: 141 Mbps
Maximum Power Consumption	Dual Diversity: 5,440 Watts Quad Diversity: 5,660 Watts	Dual Diversity: 6,570 Watts Quad Diversity: 6,790 Watts
Antenna Gain (Mid-Band)	40.0 dBi	43.1 dBi
Antenna System		
Antenna Size and Type	2.4 Meter Prime Focus Parabolic Reflector in Inflatable Radome	
Antenna Pointing Accuracy (Typical)	Azimuth: $\pm 0.2^\circ$ Elevation: $\pm 0.1^\circ$	
Antenna Pointing Range	Azimuth: -20° to $+20^\circ$ (relative to initial setup) Elevation: -15° to $+15^\circ$ (absolute)	
Antenna Pointing Mechanisms	Motorized in Azimuth and Elevation; M&C Jog and Automatic Link Alignment; Manual Override	
Antenna Position Method	Antenna-integrated Inertial Measurement Unit; No GPS Required	
Polarization	Linear with ≥ 30 dB Cross-Polarization Isolation	
Extended Height From Ground	15.3 Feet to top of antenna; 7.5 Feet to bottom of antenna	
User Interfaces		
User Data	RJ45 Ethernet (10/100/1000Base-T); MFOCA SM Fiber Optic (1000Base-LX)	
Monitor and Control	RJ45 Ethernet (10/100/1000Base-T); MFOCA MM Fiber Optic (1000Base-SX)	
Power and Environmental		
Input Power Requirement	208 VAC, 60 Hz, 3 Phase	
Operating and Storage Temperature	-40°C to $+50^\circ\text{C}$	
Wind Speed	Operational: 45 mph (sustained) Survivable: 60 mph (gusts)	
Shock and Vibration	Transportable as Secured Cargo on Vehicles, Rail, Water, Fixed/Rotary Wing Aircraft	
Electromagnetic Interference	Tested to MIL-STD-461G: CE102, CE106, CS101, CS103, CS104, CS105, CS114, CS115, CS116, RE102, RE103	
High-altitude Electromagnetic Pulse (HEMP)	Designed to withstand a HEMP event	



CHANGING THE SHAPE OF COMMUNICATIONS

Cubic is revolutionizing the ultra-portable communications industry with its inflatable communications terminal. Compared to other deployable rigid dishes of comparable size, Cubic's unique shape and designs enable extreme portability, lower cost of ownership, reliability in extreme environments and ease of set up.