

ULTRA. I&C

Archer™ Troposcatter Terminals

BEYOND SATELLITES. BEYOND LIMITS.



Archer™, the U.S. Army's choice for secure beyond-line-of-sight communications, delivers high-throughput, low-latency links without relying on satellites or fixed networks. Built for expeditionary and large-scale operations, it maintains reliable connectivity over 200 km—even in extreme environments. Its modular design supports flexible antenna setups, while integrated encryption, anti-jamming, and diversity features ensure secure, resilient backhaul for mission-critical systems.

With setup times of under 20 minutes, Archer is fast, rugged, and easy to deploy. Toolless assembly, auto-alignment, and MIL-standard transit cases keep units mobile and ready to roll. Whether in deserts, mountains, or polar regions, Archer keeps forces connected when infrastructure is down and the mission can't wait.



**200+ KM
RANGE**

Long-haul data.
No satellites. No towers.
One or two antennas—built
to adapt.



**<20-MINUTE
SETUP**

Toolless and fast.
Physically set up and
ready in minutes.



**BUILT-IN
SECURITY**

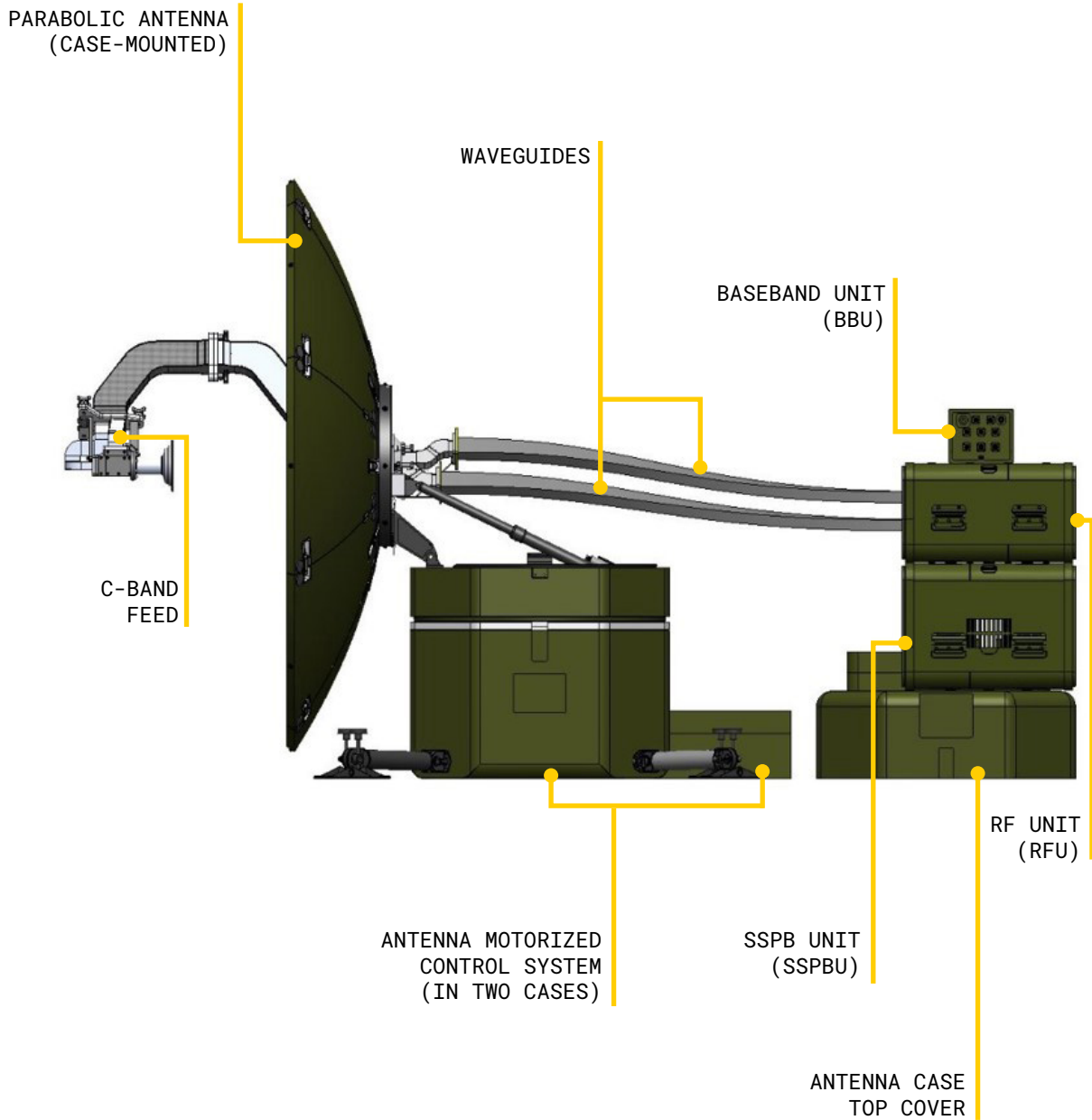
Encryption and anti-jam
protection, baked in from
the start.



**ADAPTIVE
PERFORMANCE**

Optimizes throughput
on the fly, no matter the
conditions.

Archer troposcatter terminal



DIVERSITY CONFIGURATION OPTIONS

Single- and dual-frequency



Dual polarization and quad frequency/polarization



Quad space/polarization



TECHNICAL SPECIFICATION

PERFORMANCE SPECIFICATIONS

FREQUENCY RANGE	4.4 GHz–5.0 GHz
RF CHANNEL BANDWIDTHS	2.5 MHz, 5 MHz, 10 MHz, 20 MHz (standard set) 40 MHz (option)
MIN TX/RX FREQUENCY SEPARATION	100 MHz
SSPA OUTPUT POWER	1000 W Prated
DIVERSITY OPTIONS	Single, dual frequency, dual polarization, quad frequency/polarization, quad space/polarization
MODULATION	QPSK up to 256APSK
MODE OF OPERATION	Automatic Coding and Modulation (ACM) or Fixed data rate
MAXIMUM DATA RATE	Up to 180 Mbps
LATENCY	As low as 20 ms
SECURITY	AES-256 encryption (option)
SYSTEM SETUP TIME (TWO OPERATORS)	Less than 20 minutes (1.8m antenna)

ANTENNA SYSTEM SPECIFICATIONS

ANTENNA TYPE	Parabolic segmented
ANTENNA APERTURE	1.8m or 2.4m
ANTENNA POLARIZATION	Linear orthogonal
ANTENNA GAIN	36.6dB at mid-band (1.8m), 39.1dB at mid-band (2.4m)
CROSS-POLARIZATION ISOLATION	–35 dB within the –1dB co-polar contour
VSWR	1.3:1
ANTENNA MOUNTING	Case-mounted (1.8m, 2.4m) or mast-raised (2.4m)
ANTENNA WIND RATING	
OPERATIONAL	60 km/h with gusts up to 72 km/h (case-mounted 1.8m/2.4m) 72 km/h with gusts up to 112 km/h (mast-raised 2.4m)
SURVIVAL	120km/h
ANTENNA RANGE	–160° to +160° azimuth, –10° to +90° elevation
WAVEGUIDE INTERFACE	CPRI87 flanges
ANTENNA ALIGNMENT	Semi-manual or automated self-alignment in 5 to 25 minutes (typical)

ELECTRICAL SPECIFICATIONS

INPUT VOLTAGES*	120/208 VAC 3-phase WYE @ 47 to 63 Hz
POWER CONSUMPTION (MAXIMUM)	<4500 VA for single diversity, dual frequency diversity <9000 VA for dual polarization diversity, quad diversity

INTERFACES

MONITOR & CONTROL	Intuitive Web GUI and SNMPv3
USER TRAFFIC INTERFACES	3 GbE interfaces with RJ-45 military circular connectors 2 GbE interfaces (1000Base-LX) with TFOCA-II single-mode fiber optic connector
MANAGEMENT INTERFACE	1 GbE interface with RJ-45 military circular connector

PHYSICAL AND ENVIRONMENTAL SPECIFICATIONS

TRANSIT CASES (CASE-MOUNTED 1.8M/2.4M)	6 (single diversity, dual frequency diversity) 8 (dual polarization diversity, quad frequency/polarization diversity) 10 (quad space/polarization diversity)
DIMENSIONS (W X H X D) / WEIGHT	
BBU	10 x 7 x 18 in. / 29.5 lbs (25.4 x 17.78 x 45.72 cm / 13.38 kgs)
RFU (IN CASE)	24.1 x 13.0 x 31.1 in. / 96.5 lbs (61.21 x 33.02 x 78.99 cm / 43.77 kgs)
SSPBU (IN CASE)	24.1 x 16.5 x 28.2 in. / 138.2 lbs (61.21 x 41.91 x 71.62 cm / 62.68 kgs)
ANTENNA CASES 1,2 (1.8M)	34.6 x 19.7 x 34.6 in. / 130.5, 133.9 lbs (87.88 x 50.03 x 87.88 cm / 59.19, 60.73 kgs)
ANTENNA CASES 1,2 (2.4M)	37.4 x 23.6 x 37.4 in. / 174, 163.5 lbs (94.99 x 59.94 x 94.99 cm / 78.92, 74.16 kgs)
ACCESSORIES CASE	18.5 x 10.5 x 57.4 in. / 84.8 lbs (46.99 x 26.67 x 145.79 cm / 38.46 kgs)
PAINT	Green/Tan
ENVIRONMENTAL QUALIFICATIONS*	Designed to meet MIL-STD-810H
EMI/EMC*	Designed to meet MIL-STD-461G

*Contact us for additional details