



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

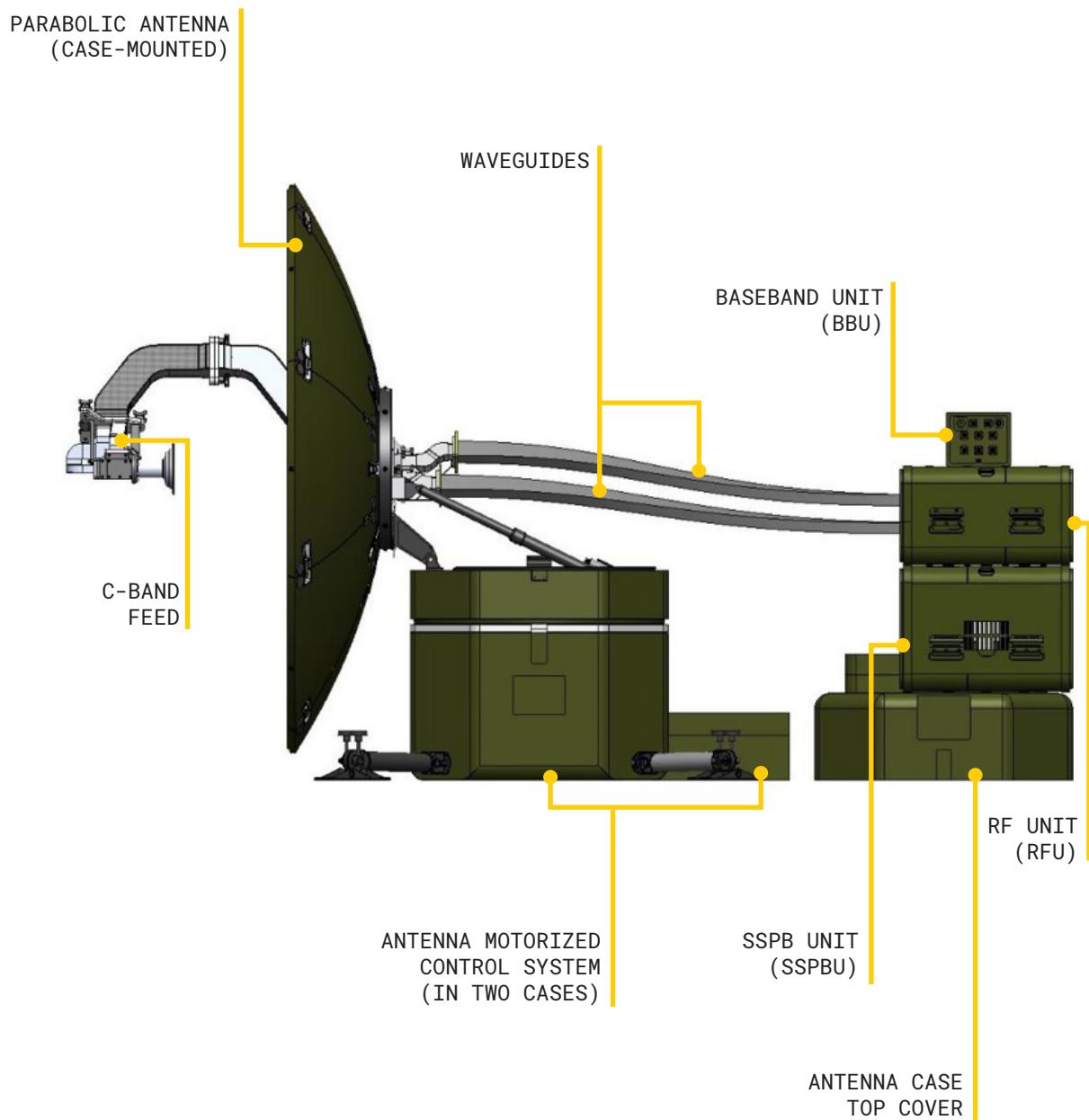
Encryption and anti-jam protection, baked in from the start.



ADAPTIVE PERFORMANCE

Optimizes throughput on the fly, no matter the conditions.

Archer troposcatter terminal



DIVERSITY CONFIGURATION OPTIONS

Single- and dual-frequency



1 BASEBAND
UNIT (BBU)



1 RF UNIT
(RFU)



1 SSPB UNIT
(SSPBU)



1 ANTENNA

Dual polarization and quad frequency/polarization



1 BASEBAND
UNIT (BBU)



2 RF UNIT
(RFU)



2 SSPB UNIT
(SSPBU)



1 ANTENNA

Quad space/polarization



1 BASEBAND
UNIT (BBU)



2 RF UNIT
(RFU)



2 SSPB UNIT
(SSPBU)



2 ANTENNAS

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 | CPR187 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