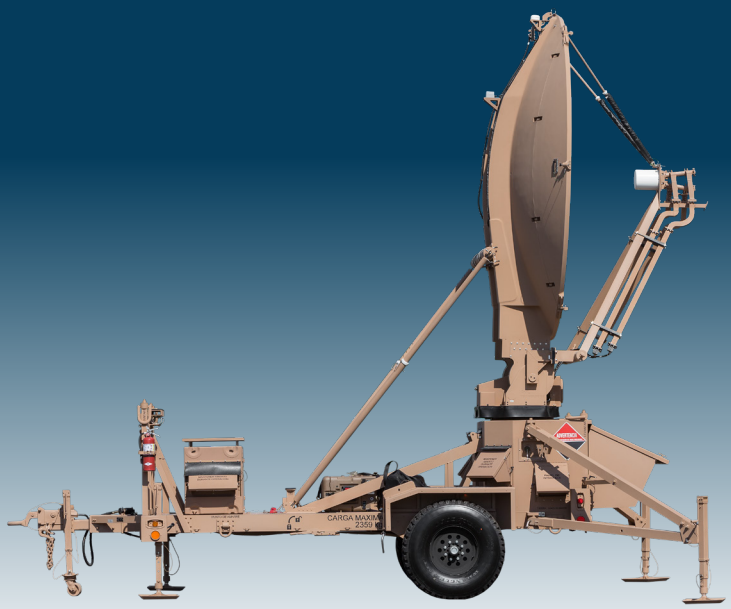
CSA3000A-V1



Transportable Fast Link Antenna

Transportable Fast Link Antenna | **CSA3000A-V1**

Comtech Systems' **Transportable Fast Link Antenna (TFLA)** is a rapidly deployable angle diversity, troposcatter antenna that operates in the 4.4 GHz to 5.0 GHz band, for use with a wide range of tropo terminals. Employing a 3.0m carbon fiber reflector mounted on a high-strength aluminum trailer,the **TFLA** is an optimum balance between lightweight design and ruggedness. Key features of the **TFLA** include automated antenna pointing, a four-port angle diversity feed for quad or dualdiversity and ability to replace two legacy antennas.

Antenna pointing with the **TFLA** is a simple,automated process. The **TFLA** includes a GPS receiver and a flux gate compass that allows the antenna control unit (ACU) to calculate and then rotate the antenna to an initial azimuth and elevation pointing angle. The automated pointing capability enables link activation in less than 30 minutes.

Comtech's innovative four-port angle diversity feed subsystem provides quad diversity operation with just one antenna, rather than two. Thus rapid deployment and solid link performance with quad diversity can be obtained at significantly lower life cycle cost than traditional systems that rely on two antennas.

CSA3000A-V1

Options

- High wind anchor kit
- Flexible waveguides
- Messenger cable for flex waveguide
- Fabric cover
- Sling kit for helicopter lifting
- Non-CARC paint available

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Technical Specifications

Antenna	
Reflector design	3.0 m diameter, three piece carbon fiber composite with folding sides for transport
Feed assembly	Prime focus, four port, linear polarized, angle diversity
Azimuth Adjustment	160 to 220 degrees for deployment software controlled ±15 degrees for adjustment
Elevation adjustment	5 degrees to +10 degrees

Antenna Performance	
Frequency range	4.4 GHz to 5.0 GHz
Gain, mid-band	40 dBi
VSWR	1.35:1
Front to back ratio	≥ 40
Polarization isolation	≥ 30dB
Power rating	2,000 W per carrier per port, 4,000 W

Electrical Components	
AC power interface	120 VAC or 230 VAC, 50/60 Hz
Antenna control unit	Provides power and control for azimuth and elevation drives in positioner
Handheld antenna controller	Mimics the look, operation, and function of the primary controller
Positioner	Azimuth and elevation positioner

Key Features

- Carbon fiber reflector with segmented folding sides for air, rail, sea, and road transport
- Four-port angle diversity feed horn
- Antenna control unit with automated process to raise, point, lower, and stow the reflector for transport
- Handheld antenna controller that mimics the look, operation, and functions of the primary ACU
- Rapid deployment and link operation in less than 30 minutes using only two people
- Transportable by light truck, fixed wing aircraft, or helicopter

Included in the TFLA System

- GPS for location
- Flux gate compass
- Stabilization arms and struts, front and rear
- Replaceable stabilization foot pads
- Handheld antenna controller with 50ft cable
- Hand crank for manual antenna positioning
- Ground rods and ground cable for trailer electrical ground and lightning ground
- Storage containers for flex

Mechanical	
Stowed length	211 in. (536 cm)
Stowed width	95 in. (242 cm)
Stowed height	102 in. (260 cm)
Deployed length	223 in. (567 cm)
Deployed width	189 in. (481 cm)
Deployed height	223 in. (567 cm) (does not include lightning protection aerial)

Environmental	
Wind speed	Operational up to 45 mph without tie downs
Operational temperature	-40 °F to 140 °F (-40 °C to 60 °C)
Storage temperature	-67 °F to 158 °F (-55 °C to 70 °C) (With Integrated Electronics Case ECU)
Operational altitude	10,000 ft (3,000 m)
Storage and transport altitude	40,000 ft (12,000 m)

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