

Model SAT1750-S Net-Centric Operational (NCO) Antenna System

CAES' Net-Centric Operational (NCO) Antenna System will provide a flexible, high data-rate, transportable 3600 solution to the war fighter. As a critical Net-Centric ground link, the SAT1750-S will seamlessly provide Intelligence, Surveillance and Reconnaissance (ISR) sensor information across the battle-space.

The system features multi-band operation to support a broad range of applications.

Feature

- Modular design to allow interchangeability of LRU's
- Wide beam antenna is included for acquisition
- 15-minute 2-person setup time
- 2 person lift and transport case design
- Integrated controller
- Compliance to MIL-STD-704E, 28 VDC input
- -40OC to +49OC operating temperature with solar loading
- No tools required to change between CDL and Intelsat feeds
- Integrated GPS provides intelligent positional data
- Run/Safe switch for safety of personnel during maintenance and repair
- Software upgrades via external connectors



Frequency Bands

	Transmit	Receive
X-Band :	9.75 - 9.95 GHz (common data link)	10.15 - 10.45 GHz (Common Data Link)
Ku-Band:	14.4 -15.35 GHz (common data link)	14.4 - 15.35 GHz (Common Data Link)
Ku-Band:	13.75 - 14.5 GHz (intelesat)	10.95 - 15.34 (Intelsat)

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Mechanical

ANTENNA	<ul style="list-style-type: none"> Segmented 48 inches diameter parabolic reflector with self aligning petals
WEIGHT	<ul style="list-style-type: none"> 245 lbs (excluding transit cases)
PEDESTAL TRAVEL RANGE	<ul style="list-style-type: none"> -4.5° to +85° EL, 360° continuous Az
STOWAGE	<ul style="list-style-type: none"> One tripod bag and 5 transit cases
SLEW RATE:	<ul style="list-style-type: none"> 30°/second
ADJUSTABLE TRIPOD	<ul style="list-style-type: none"> Allows leveling on uneven terrain up to a 15° incline
STOW PINS	<ul style="list-style-type: none"> AZ and EL stow pins to lock antenna when powered down

Electrical / RF		Narrow Beam	Broad Beam
EIRP	X-Band :	>79 dBm	>41 dBm
	Ku-Band (CDL):	>81 dBm	>44 dBm
	Ku-Band (Intelsat):	>81 dBm	>44 dBm
G / T	X-Band :	>12 dBi/K	> - 16 dBi/K
	Ku-Band (CDL) :	>15 dBi/K	> - 15 dBi/K
	Ku-Band (Intelsat):	>14 dBi/K	> - 15 dBi/K
GAIN	X-Band :	38 dBi Tx, 39 dBi Rx	17 dBi Tx, Rx
	Ku-Band (CDL):	41 dBi Tx, 42 dBi Rx	20 dBi Tx, Rx
	Ku-Band (Intelsat):	42 dBi Tx, 40 dBi Rx	20 dBi Tx, Rx
AXIAL RATIO		<2.5 dB LHCP/RHCP	
CROSS POLARIZATION		>27 dB Intelsat	
3 dB BEAMWIDTH		1.5 ° @ 15.25 GHz	>14°@ 15.25 GHz >20°@ 10.43 GHz
SIDELOBES		-15 dB X-Band, -14 Ku-Band	
FRONT TO BACK RATIO		35 dB min.	
VSWR		<2.3:1 @ Pedestal Input	<2.3:1 @ Pedestal Input
RECEIVE SIGNAL STRENGTH		-103 dBw X-Band -107 dBw Ku-Band (CDL) -133 dBw Ku-Band (Intelsat)	
PRIME POWER		28 VDC, 420W typical operating conditions	