

# Model SAT1736-S Antenna System

The SAT1736-S is a transportable, multi-role, dual-band, dual-polarization, dual-aperture, Tx/Rx data link and satcom terminal. The system consists of a narrow-beam reflector with interchangeable feeds to support either a dual (X/ Ku) Tx/Rx data link or a Ku Tx/Rx satcom link, a Ku-band wide-beam Tx/Rx antenna, a multi-band switching RFE, a positioner/controller, a tripod, an integrated compass/ inclinometer, a GPS receiver and transit cases. The switching RFE is used for processing the two-way signals, for toggling between the frequency bands and for toggling between the wide and narrow beam antennas. The RFE consists of X and Ku LNA's and filtering on thereceive side, X and Ku HPA's on the transmit side and RF switching to enable the X or Ku RF links to be selected and routed to either the wide or narrow beam antennas.

## Features

- Configurable as Data Link or Satcom Link Terminal
- Dual-Band (X/Ku), Dual-Aperture Tx/Rx Data Link
- Ku-Band Tx/Rx Intelsat Compatible Satcom
- Transportable, Lightweight, Quick Deploying, Ruggedized Design
- Remote Control of Antenna and RFE Switching via RS-422 Bus



## Frequency Ranges

<b>Ku Data Link</b>	Tx/Rx : 15.15 - 15.35 GHz Rx/Tx : 14.40 - 14.83 GHz
<b>X Data Link</b>	Tx : 9.75 - 9.95 GHz Rx : 10.15 - 10.45 GHz
<b>Ku SatCom</b>	Tx : 13.75 - 14.50 GHz Rx : 10.95 - 12.75 GHz

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Specifications	WIDE BEAM	NARROW BEAM
<b>EIRP</b>	<ul style="list-style-type: none"> <li>Ku Data Link : 81.0 dBmi</li> <li>X Data Link : 78.0 dBmi</li> <li>Ku SatCom: 81.5 dBmi</li> </ul>	<ul style="list-style-type: none"> <li>81.0 dBmi</li> <li>-----</li> <li>-----</li> </ul>
<b>G / T</b>	<ul style="list-style-type: none"> <li>Ku Data Link : 14.0 dB/K</li> <li>X Data Link : 11.7 dB/K</li> <li>Ku SatCom: 14.2 dB/K</li> </ul>	<ul style="list-style-type: none"> <li>17.5 dB/K</li> <li>-----</li> <li>-----</li> </ul>
<b>AXIAL RATIO</b>	<ul style="list-style-type: none"> <li>Ku Data Link : 3 dB max ( L/RHCP)</li> <li>X Data Link : 3dB max (RHCP)</li> <li>Ku SatCom: 27 dB min (linear)</li> </ul>	<ul style="list-style-type: none"> <li>3 dB max ( L/RHCP)</li> <li>-----</li> <li>-----</li> </ul>
<b>3 dB BW (AZ/EL)</b>	<ul style="list-style-type: none"> <li>1.5°/1.5°max, 60°/14°min</li> </ul>	
<b>VSWR RF IN/OUT</b>	<ul style="list-style-type: none"> <li>2:1 max</li> </ul>	
<b>ANTENNA DIAMETER</b>	<ul style="list-style-type: none"> <li>48 inches</li> </ul>	
<b>INPUT POWER</b>	<ul style="list-style-type: none"> <li>28 VDC; 310 W typ &amp; 516 W max</li> </ul>	
<b>VSWR FEED</b>	<ul style="list-style-type: none"> <li>1.5 : 1 max</li> </ul>	
<b>DEPLOYED SIZE</b>	<ul style="list-style-type: none"> <li>65 inches (diameter) x 85 inches</li> </ul>	
<b>WEIGHT</b>	<ul style="list-style-type: none"> <li>225 pounds</li> </ul>	
<b>SIZE</b>	<ul style="list-style-type: none"> <li>5 transit cases &amp; 1 tripod bag (Total 48 cu. ft.)</li> </ul>	