

THE 2.4XLB IS A COMPLETE DIRECT BROADCAST (DB) RECEPTION SYSTEM INCLUDING ALL THE COMPONENTS NECESSARY TO ACCURATELY TRACK X AND L BAND SATELLITES TO RECEIVE EARTH OBSERVATION DATA*. THE SYSTEM COMBINES ORBITAL SYSTEMS' MOST POPULAR PRODUCTS, AS WELL AS PROFESSIONAL INSTALLATION TO PROVIDE ACCESS TO THE HIGHEST QUALITY SYSTEM AT THE LOWEST POSSIBLE COST FOR SCIENCE AND WEATHER RESEARCH.

***INCLUDING X-BAND TERRA, AQUA MODIS; L-BAND METOP EPS (WHEN AVAILABLE), NOAA POES HRPT, FENG YUN 1D CHRPT.**

Antenna System

Components

- Antenna Positioner with 2.4m Reflector. (2.4AEHP)
- Concentric X and L Band Feed with built in LNA/LNB and downconverters. (FDXL-B)
- Rack mounted X and L Band Receivers. (RMRXL-A)
- Front End Server including server hardware and software license. (EOS-FES)
- Dehydrator. (PMT200A)
- Custom cut to length and terminated system cables.
- Custom packing crates.
- Up to 2 days of on-site installation labor.

Features

- A complete and fully integrated bundle that receives X and L band DB data and processes it to level 0.
- High performance versions of industry standard Quorum Communications RF components utilized.
- System provides high reliability antenna positioned and straightforward graphical user interface so researchers spend their valuable time focusing on the data and not the antenna.
- EOS-FES ties together and synchronizes all system components to automate passes, track satellites, receive and ingest and then process data to level 0.
- Automatic TLE updates as well as remote diagnosis and software updates.
- Remote support and assistance available for integration with customer's application processing software.
- Shared installation responsibility between customer and Orbital Systems ensures an outstanding installation and keeps total installation costs to a minimum.
- Typical time from purchase to installed and operation system is 4 months.

2.4XLB - X-L Band EOS DB Reception System Bundle



Applications

- Complete EOS reception bundle for X-L Band satellites to level 0 data files.

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2.4XLB - X-L Band EOS DB Reception System Bundle

Performance Specifications

Antenna:

Reflector	2.4m, solid spun aluminum
F/D	.360
Feed	X-Band prime focus scalar with L-Band on axis feed

X-Band:

X-Band Operating Frequency	7700 MHz	thru	8500 MHz
Reflector 3 dB Beamwidth	1.05°		0.97°
Reflector Gain	43.5 dB		44.2 dB
*G/T minimum w/system noise temp <100 K	23.5 dB/K		24.2 dB/K
*G/T typical performance	24.0 dB/K		24.6 dB/K
LNC noise temperature			<50 K
LNC overall conversion gain X to IF			60 dB typical
Synthesized Downconverter step size			100 KHz
Local oscillator temperature stability			+ 5 ppm
IF output	720 MHz		

L-Band:

L-Band Operating Frequency	1682 MHz	thru	1710 MHz
Reflector 3 dB Beamwidth			4.9°
Reflector Gain			30.0 dB
*G/T minimum w/system noise temp <120 K			7.5 dB/K
*G/T typical performance			8.4 dB/K
LNB noise temperature			90 K (preselected)
LNB conversion gain			60 dB typical
Local Oscillator Frequency (block downconverter)			100 KHz
Local oscillator temperature stability			+ 2.5ppm
IF output	126 MHz	thru	154 MHz

Receivers:

Mechanical	2 U rack mounted
Interface	RS422 clock and data
X Band supported modes	MODIS
L Band supported modes	EPS, HRPT, CHRPT

EOS-FES:

Antenna Control	Monitoring and Pass scheduling for antenna Automatic update of antenna TLEs
Data Processing	Ingest of receiver data and processing to level 0 Optional AAPP processing to level 1A - 1B
High speed serial interface	Includes EDT CDa card and cables
Server	HP DL 385 w/ 2.1GHz, Quad-Core CPU, 143GB RAID1, 4GB main memory

**G/T values determined at 23°C and elevation > 10°*

Individual component specifications can be found in product specific data sheets.

Please visit our website for additional information:

<http://www.orbitalsystems.com>

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Prices and specifications are subject to change without notice.

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