

X-Band VHR Downlink

XDL-C301-VHR

Honeywell introduces a new family of Very High Rate (VHR) Downlink products to the space market. With the well-established brand recognized by equipment supplied on over 900 satellites, Honeywell has developed an innovative downlink transmitter with flexible coding modulation and output power. The X-band downlink module is aimed at addressing mission requirements of small and medium spacecraft for LEO missions.

Specifications

GENERAL	
INPUT DATA RATE	Up to 1Gbps
EXPECTED LIFE	7 years
RELIABILITY / CLASS OF EQUIPMENT	ECSS Class-3 and NASA level 2
WEIGHT	1 Kg
SIZE (MM)	200mmx150mmx100mm
POWER CONSUMPTION (W)	65W at 39 dBm (7.94W RF) scalable
SUPPLY VOLTAGE RANGE (V)	20-36V
TEMPERATURE RANGE (DEG C)	-25°C to +60°C operating -30°C to +65°C non-operating
RANDOM VIBRATION	25 g rms (all axis)
RADIATION TOLERANCE	25 kRad TiD & 15Mev SEE
FREQUENCY RANGE (MHZ)	8025-8400 MHz in 1 MHz steps
OUTPUT POWER RANGE (TRADE WITH LINK BUDGET)	32-37 dBm (Variant 1) 37-42 dBm (Variant 2)
MODULATION FORMATS	QPSK, OQPSK, 8PSK, 16-QAM, 16APSK, 32 APSK
CODING OPTIONS	Convolutional, Reed-Solomon, SCCC, LDPC, DVB-S2
PROCESSING POWER INFORMATION	Sufficient for 1Gbps
DATA RATES	In-flight configurable
DATA INTERFACE	RS-422, LVDS
RF INTERFACE	50 Ohm SMA
TTC INTERFACE	RS-422,CAN, option for 1553
FILTERING	Compliant with ITU regulations
LEAD TIME	12 months

PROVISIONAL – Subject to change

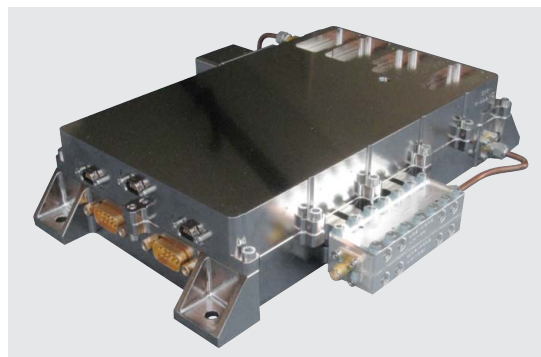
A high reliability COTS variant (XDL-MS01-VHR) of this product is also available. For more details please contact Honeywell.

For more information

To find out more about our offering, visit aerospace.honeywell.com/en/product-listing/space or contact us at aero.marketing@honeywell.com

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Main features:

- Low mass and low volume unit
- SDR based implementation with flexible modulation, data-rate and output power
- OQPSK/QPSK/8PSK/16-QAM/16APSK/32 APSK modulation schemes
- Programmable output frequency
- Selectable coding – Convolutional, Reed-Solomon, SCCC, LDPC, DVB-S2
- Telemetry/Telecommand via RS-422 or CAN bus
- LVDS synchronous data ports with auto detection
- Low power consumption
- High efficiency GaN amplifier-based design

This is the highest rate transmitter in the new series of X-Band equipment introduced by Honeywell aiming to complement the existing range of small downlink transmitters for small satellites.