

XRF31F14ZD/L

High-Value Ka-Band VSAT Transceiver

Key Features:

- Field configurable integrated circular polarisation
- 1.5 Watt transmit output power
- PLL (± 25 ppm)
- Integrated OMT and TRF for best EIRP and G/T
- S-Band IF Modem interface with 10 or 50 MHz reference
- Durable IP-rated enclosure



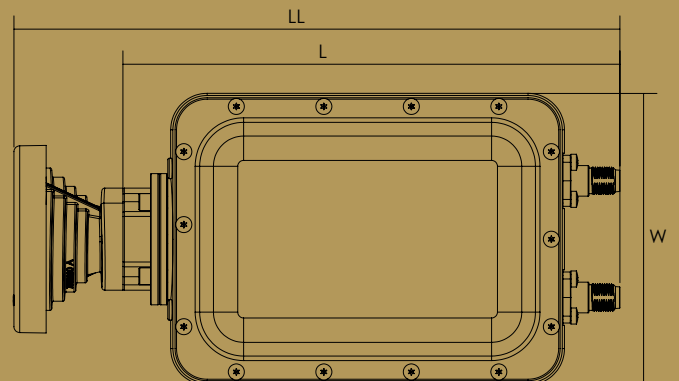
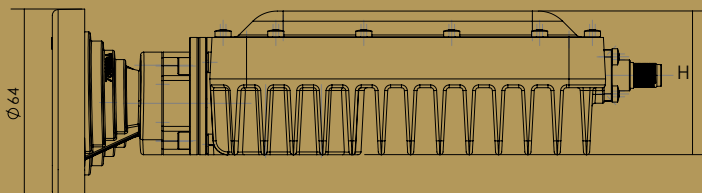
The Global Skyware Limited XRF transceiver is the result of applying the industry's cutting edge Ka-Band VSAT engineering techniques and production methods to result in our lightest, most compact and affordable design to date. The ruggedised IP-67 sealed enclosure integrates a BUC, LNB, field-configurable circular polariser, and TRF guaranteeing consistent communications performance. The XRF transceiver additionally includes audible pointing assistance to simplify installation.

Supporting the latest S-Band modem technologies with 10 MHz reference compatibility, the XRF is optimised for high volume production for global consumer broadband deployments. Production units are 100% tested with a rigorous process to ensure reliable maintenance-free operation for years. Other option available including 3.0 W output power and 50 MHz TX reference and variations on TX and RX LO IF frequencies.



Dimensions (mm)

Model	L	LL	W	H
XRF31F14ZD/L	166	204	96	58



Unit appearance may differ from that shown.

SPECIFICATIONS

XRF31F14ZD/L Ka-band Outdoor VSAT Transceiver

Feed and Polariser

Parameter	Minimum	Typical	Maximum	Unit	Note
Feed and Polariser Subsystem		integrated			Matched to Global Skyware antennas
Polarisation		RHCP/ LHCP			Field configurable, RX/TX orthogonal
XPD	TX	25		dB	
	RX	20		dB	

TX Subsystem (BUC)

Parameter	Minimum	Typical	Maximum	Unit	Note
IF Input Frequency Range	1400		2400	MHz	
RF Output Frequency Range	29.0		30.0	GHz	
Local Oscillator Frequency		27.6		GHz	
Local Oscillator Phase Noise			2.3	deg	DSB rms, 100 Hz – 100 kHz
Local Oscillator Ext Ref Frequency		10		MHz	
IF Input Drive Power		-17		dBm	
IF Input Impedance		75		Ohm	
Conversion Gain	50	54	58	dB	
RF Output Spurious Level	according to EN301 459 and FCC 47 CFR 15/25 AB				
Supply Voltage	18		52	V	Negative ground
RF Output Power @ P1dB	32	33		dBm	> 1.6 W
Power Current @ 24 V	P1dB		1.1	A	
	TX carrier off		0.8	A	

RX Subsystem (LNB)

Parameter	Minimum	Typical	Maximum	Unit	Note
RF Input Frequency	17.8		20.2	GHz	
IF Output Frequency Range	950		2150	MHz	
Local Oscillator Frequency (nominal)		16.85 / 18.05		GHz	
Local Oscillator Frequency Tolerance PLL			± 25	ppm	
Local Oscillator Integrated Phase Noise			2	deg	1 kHz - 1 MHz
Total Transceiver Noise Figure @ 25°C		1.2	1.7	dB	TX ON (Carrier On/Off)
Conversion Gain	52	56	60	dB	
Image Band Rejection	20			dB	
IF Output IP3	+10			dBm	
IF Output Impedance		75		Ohm	F-type receptacle
Supply Voltage	15		52	V	
Supply Current @ 24 V		140	170	mA	

General

Parameter	Minimum	Typical	Maximum	Unit	Note
Operating Temperature	-40		+60	°C	
Moisture/ Humidity Protection					IP67
Weight		1.4		kg	Including feed