

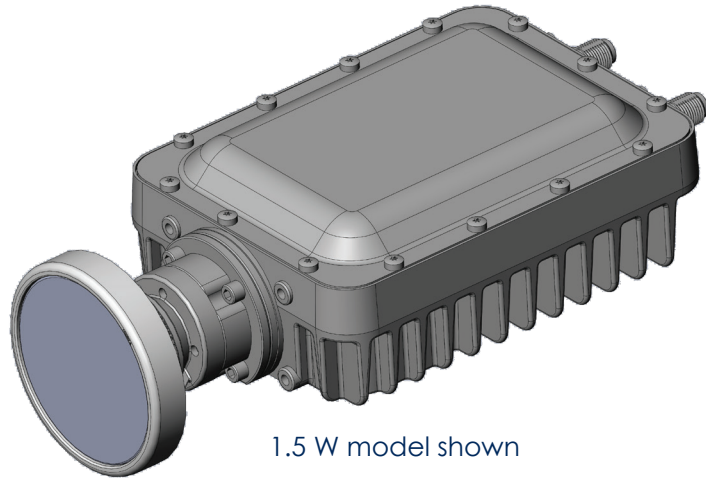


XRF 3100 / 3300 / 3600

High-Value Ka-Band VSAT Transceiver

Key Features:

- Field configurable integrated circular polarisation
- 1.5 Watt, 3 Watt and 6 Watt transmit output power options
- PLL (± 25 ppm) or DRO (± 4 MHz) LNB options
- 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



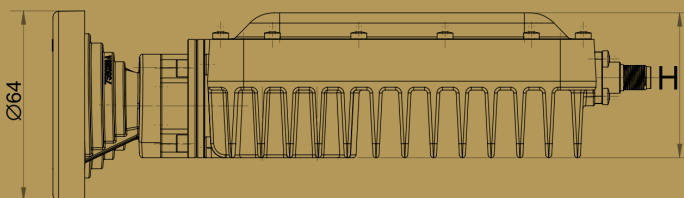
1.5 W model shown

The Skyware Technologies 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, OMT, and TRF guaranteeing consistent communications performance. The XRF transceiver additionally includes audible pointing assistance to simplify installation.

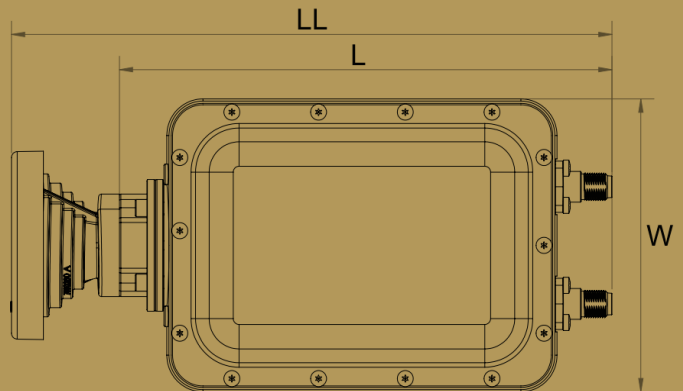
Supporting the latest S-Band modem technologies with flexible 10 and 50 MHz reference compatibility, and available in 1.5, 3 and 6 Watt transmit power options, the XRF is optimised for high volume production for global consumer broadband deployments. Production units are 100% tested with a rigorous process to ensure reliable maintenance-free operation for years.

Dimensions (mm)

Model	L	LL	W	H
XRF3100	170	208	100	49
XRF3300	TBA	TBA	TBA	TBA
XRF3600	TBA	TBA	TBA	TBA



Unit appearance may differ from that shown.



XRF 3100 / 3300 / 3600 Ka-Band Outdoor VSAT Transceiver

Technical Specification

Feed and Polariser

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

TX Subsystem (BUC)

Parameter	Min	Typical	Max	Unit	Note
IF Input Frequency Range	1400		2400	MHz	See options available
RF Output Frequency Range	29.0		30.0	GHz	See options available
Local Oscillator Frequency		27.2/27.6/27.65		GHz	See options available
Local Oscillator Phase Noise			2.5	deg	DSB rms, 100 Hz – 100 kHz
Local Oscillator Ext Ref Frequency	Option	10		MHz	
	Option	50		MHz	
Operational Power @ P1dB (20 dBc ACPR)	XRF3100	1.6		W	
	XRF3300	2.5		W	
	XRF3600	5.4		W	
IF Input Drive Power		-17		dBm	
IF Input Impedance		75		Ohm	F-type receptacle
RF Output Spurious Level	according to EN301 459 and FCC 47 CFR 15/25 AB				
Supply Voltage	15		50	V	DC via TX IF port
Power Consumption	XRF3100	18		W	
	XRF3300	23		W	
	XRF3600	28		W	

Rx Subsystem (LNB)

Parameter	Min	Typical	Max	Unit	Note
RF Input Frequency	17.8		20.2	GHz	see options available
IF Output Frequency Range	950		2150	MHz	see options available
Local Oscillator Frequency (nominal)	16.85/17.15/17.25/18.05			GHz	see options available
Local Oscillator Frequency Tolerance	PLL		±25	ppm	option
	DRO		±4	MHz	option
Local Oscillator Integrated Phase Noise			2	deg	100Hz - 1 MHz
Total Transceiver Noise Figure @ 25°C	1.2	1.3	1.5	dB	TX ON (Carrier On/Off)
Conversion Gain	50	56	62	dB	
Image Band Rejection	30			dB	
IF Output IP3	+10			dBm	
IF Output Impedance		75		75 Ohm	F-type receptacle
Supply Voltage	18		52	V	
Power Consumption		15		W	

General

Parameter	Min	Typical	Max	Unit	Note
Operational Temperature	-40/-25		+60/+50	°C	See options available
Moisture/Humidity Protection Class					IP67
Weight		1.2		kg	Including feed

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All designs, specifications and availabilities of products and services presented in this bulletin are typical and subject to change without notice.

XRF 3100_3300_3600 Datasheet Aug-2016
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XRF 3100 / 3300 / 3600 Ka-Band Outdoor VSAT Transceiver

Technical Specification

Frequency Conversion Table

TRANSMIT						RECEIVE				
BAND	IF (MHz)		LO (GHz)	RF (GHz)		RF (GHz)		LO (GHz)	IF (MHz)	
	MIN	MAX		MIN	MAX	MIN	MAX		MIN	MAX
	1400	2400	27.6	29.0	30.0	17.8	19.0	16.85	950	2150
	1600	1900	27.2	28.8	29.1	19.0	20.2	18.05	950	2150
	1850	2350	27.65	29.5	30.0	18.1	19.3	17.15	950	2150
						19.05	20.2	18.05	1000	2150
						18.2	19.2	17.25	950	1950
						19.2	20.2	18.25	950	1950
						19.7	20.2	18.25	1450	1950

- Notes.
1. Transmit and receive IF strips use low side LOs for no spectrum inversion.
 2. All frequency bands (options) are shown.

Note

Other variations to technical parameters, options and accessories may be available. Contact our sales team to discuss your requirements.



XRF Family Transceivers Part Number Configurator

XRF 3 - - - - - A - X X

RF Power @ P1dB
100 = 1.6W
300 = 2.5W
600 = 5.4W

TX Frequency Band
G = 28.0 - 29.0GHz
H = 29.0 - 30.0GHz

TX Ext LO Reference
1 = 10MHz
5 = 50MHz

RX Frequency Band, Low
M = 17.8 - 19.0GHz
N = 18.1 - 19.3GHz
P = 18.2 - 19.2GHz
Q = 19.0 - 19.3GHz

RX Frequency Band, High
S = 19.0 - 20.2GHz
T = 19.05 - 20.2GHz
U = 19.2 - 20.2GHz
X = None

RX Band Selection
A = 22kHz ON: High Band (std)
B = 22kHz ON: Low Band
X = No High Band

RX LO Reference
A = ±25ppm internal ref, PLL
B = ±4MHz internal ref, DRO

Default Polarisation
R = TX RHCP/RX LHCP
L = TX LHCP/RX RHCP

RF Feed
S = Short focal length, f=0.6
L = Long focal length, f=0.8

LED Indicator
A = Yes

Temperature Range
A = -40° to +60° C
B = -25° to +50° C

Spare 1

Spare 2