

AM944X Series Ku-Band Transceiver

Key Features

- ❑ 70MHz Tx and Rx IF
- ❑ 2/4/8/16/40 Watt versions
- ❑ Small Size, Light Weight
- ❑ Intelligent temperature compensated power output
- ❑ Excellent gain flatness
- ❑ High frequency stability
- ❑ Simple installation,
- ❑ Straightforward operation
- ❑ Microcontroller M&C
- ❑ High Reliability
- ❑ Wide operating temperature range

Applications

- ❑ Wide area telephony
- ❑ Video conferencing
- ❑ Private data network
- ❑ SCPC, DAMA, TDMA networks

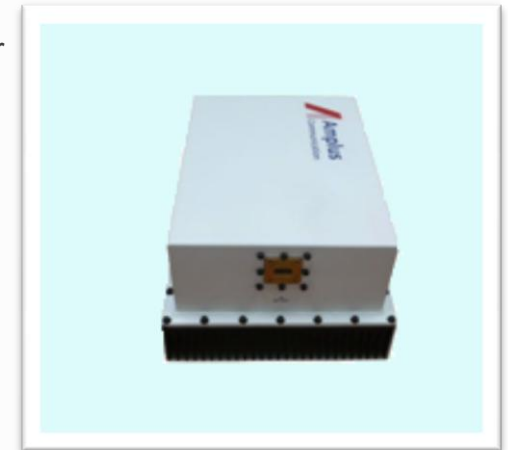
The AM944X series of Ku-Band transceivers are of high performance and some of the most cost effective in the industry. These transceivers are highly integrated outdoor units with patented design to work reliably under harsh environments. It comes with intelligent Monitor & Control capability. Setup and monitoring & control can be done remotely via RS232/RS485. The set up of the transceiver can also be done with our handheld terminal through RS232 connection. These transceivers are available in single or redundant configurations.

The AM944X transceiver offers some of the best frequency stability in the industry and is designed to withstand high surge voltages common in many countries regions.

The AM944X transceiver is enclosed in a single unit housing. This design facilitates quick and easy installation by direct mounting on a wide range of earth station antennas. All can be factory configured to various Ku band, frequency configurations.

The AM944X transceiver is an ideal choice for any VSAT application including wide area telephony, video conferencing and data communication systems using SCPC/MCPC, TDMA and DAMA configuration with different modulation formats such as BPSK, QPSK and QAM etc.

All Transceivers are designed, built and tested in Amplus' ISO9001, ISO14001, and OHSAS18001 certified manufacturing facility. OCXO is tuned & monitored for stabilization before being mounted to the units. The Transceivers are subjected to 3 days burn in and their performance are monitored over the temperature range. Amplus delivers quality product with impressive lead time and have manufacturing capacity to fulfill large quantity requirement.



AM944X Series Ku-Band Transceivers

Frequency Band	Receive (Exclude LNB)		Transmit				Power Supply	Mechanical		Product Highlights	
	I/P Frequency (GHz)	RF I/P : IF O/P connector	O/P Frequency (GHz)	Power (Watt)	P ^{-1dB} (dBm)	Gain (dB)		IF I/P : RF O/P connector	Voltage		Dimension LxWxH (mm)
Ku Band	10.95-11.70 11.70-12.20 12.20-12.70 12.25-12.75	N (F) : N (F)	Std Ku: 14.0 ~ 14.5 Ext Ku: 13.75 ~ 14.5	2	33	43 -63	N-type (F) : WR75	220VAC /110VAC	238 x 327 x 126	9	*Single Package Transceiver + LNB *AC powered come with Transient protection capability
				4	36	46 -66					
				8	39	49 -69					
				16	42	52 -72					
				40	46	56-76			362 x 264 x 248	18	

Transmit	Technical Specification	
Input Frequency	70 or 140 MHz ± 18MHz selectable	
Output Frequency	Std Ku: 14 to 14.5 GHz Ext Ku: 13.75 to 14.5GHz	
IF input VSWR (Interface)	1.3: 1 max (N-F)	
RF Output VSWR (Interface)	1.5:1 max (CPR-75G)	
IF Input Power Range	-30 to -10 dBm	
Gain Flatness	± 1.0dB (over IF BW)	
	± 1.5dB (over RF BW)	
Gain Stability	± 2.0dB (-40 to 55 °C)	
Gain Adjustment	25dB @ 0.5dB step	
Inter-modulation Product	-27dBc	
Spurious	-55dBc	
Carrier Mute	<80dBm	
Phase Noise	@100Hz	-70dBc/Hz (typ)
	@1kHz	-75dBc/Hz (typ)
	@10kHz	-80dBc/Hz (typ)
	@100kHz	-90dBc/Hz (typ)
Receive (LNB)	Technical Specification	
Input Frequency Option	10.95 to 11.70 GHz 11.70 to 12.20 GHz 12.20 to 12.70 GHz 12.25 to 12.75 GHz	
Output Frequency	950 to 1450 MHz	
Input VSWR (Interface)	2.5 : 1 max (CPR -75G)	
Output VSWR (Interface)	2.5 : 1 max (N)	
Noise Temperature	80 K typ. at 25 °C	
Gain	60dB typ	
Gain Flatness	± 1.5dB	
Gain Stability	± 2.0dB (-40 to 55 °C)	
General Characteristics	Technical Specification	
Temperature (operating)	-40 to 55 °C	
Temperature (storage)	-40 to 85 °C	
Humidity	0 to 100%	

Receive (Exclude LNB)	Technical Specification	
IF Output Frequency	70 or 140 MHz ± 18MHz selectable	
RF Input Frequency	950 to 1700 MHz	
RF input VSWR (Interface)	1.4 : 1 max (N -F)	
IF output VSWR (Interface)	1.4 : 1 max (N -F)	
Gain	30dB typ	
Gain Flatness	± 1.0dB (over IF BW)	
Gain Adjustment	25dB @ 0.5dB step	
Gain Stability	± 2.0dB (-40 to 55 °C)	
Output Power P-1dB	>0dBm	
Spurious	-50dBc	
Phase Noise	@100Hz	-70dBc/Hz (typ)
	@1kHz	-75dBc/Hz (typ)
	@10kHz	-85dBc/Hz (typ)
	@100kHz	-95dBc/Hz (typ)
Common	Technical Specification	
Frequency Conversion	No inversion	
Frequency Step Size	1MHz	
Frequency Stability	± 0.02ppm (-40 to 55 °C)	
Frequency Aging	± 1 ppb/day	
	± 0.1ppm/year	
Other option available		
Monitor & Control	Technical Specification	
Control Function	Channel select	
	Gain Adjustment	
	Carrier Mute	
Monitor Functions	Channel/Gain setting	
	Power amp status	
	LOs status	
	Temperature Monitoring	
Serial Interface Standard	RS-232/RS-485/FSK	

Specifications are subject to change without notice



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