

ARDXXX-XX

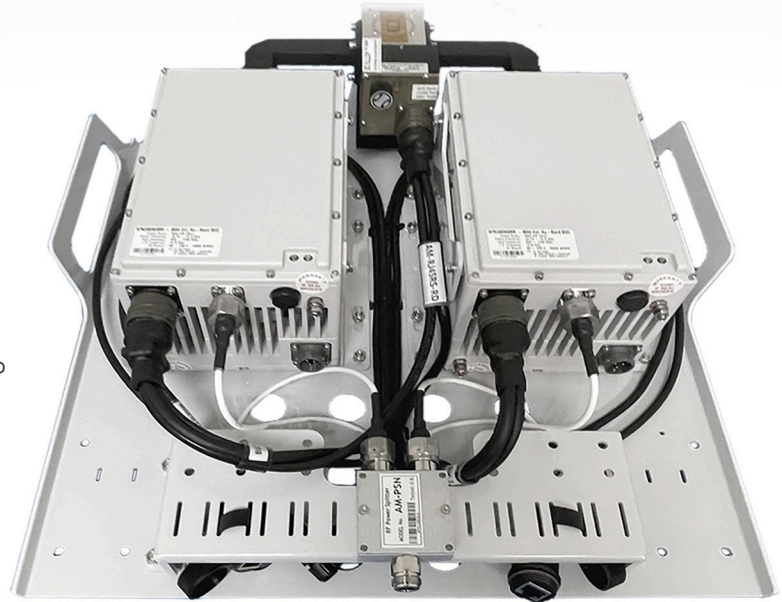
GaAs + GaN Technology

Advanced compact and reliable 16W to 125W Redundancy System Kit



FEATURES:

- Compact, Lightweight Design
- Extreme Stability, Reliability and Performance
- Extreme GaN Linearity and Efficiency
- Input splitter for L-Band and Ext.10MHz Ref
- All Required Cables are included
- Waveguide Couplers and Switch Included
- Exceeds ALL IESS-308/309 Phase Noise Standards
- Monitor&Control via Ethernet, RS232/RS485 and SNMP
- Handheld Controller (optional)
- AC/DC Power supply with Integrated M&C (optional)
- Assembled and Rigorously Tested in California
- 3 Year Warranty



DESIGN OVERVIEW:

Redundancy Kit System includes:

1x Main Plate, 4x L-Corner BUC Mounting brackets, 1x RF Splitter/Cable Holder Plate, 1x WR75 Waveguide Switch, Waveguide connections, Termination, all necessary cables and connections. System comes fully ready for deployment.

PERFORMANCE SPECIFICATIONS

Operating RF Frequency	13.75 - 14.50 GHz 14.0 - 14.5 GHz
Operating IF frequency	950 to 1700 MHz 950 to 1450 MHz
Local Oscillator	12.80 GHz 13.05 GHz
Rated Output Power PSAT	Up to 125W 51dBm at PSAT
IMD3 (two tones) 3dB Back Off	-25 dBc max. 2 signal 5MHz apart at P-LINEAR
Spectral Regrowth at PLINEAR (QPSK at 1.5x and OQPSK at 1.0x symbol rate offset with 2dB back-off from rated power)	-30 dBc
10MHz External Ref. (Internal High Stability Optional)	10MHz Ref. Level: 0dBm +/- 5dBm Internal Ref. Stability +/- 0.1 ppm

COMPLIANCE INFORMATION

MIL - STD - 188/164C	MIL - STD - 461	ROHS, REACH, WEEE
MIL - STD - 810E	DO - 160 G	

SPURIOUS & PHASE NOISE

In-Band/Out-band Spurious	-55dBc max.	
Group Delay	Ripple 1 nsec point to point max.	
AM/PM Conversion	1.0°/dB max. at 3 dB output backoff	
Noise Power Density (TX)	-85dBm/Hz	
Noise Power Density (RX)	-135dBm/Hz (10.95 - 12.75 GHz)	
Phase Noise (Up Converter) (Ext. Ref.)	-55 dBc/Hz @ 10 Hz	-115dBc/Hz
	-65 dBc/Hz @ 100 Hz	-135dBc/Hz
	-75 dBc/Hz @ 1 kHz	-150dBc/Hz
	-85 dBc/Hz @ 10 kHz	-155dBc/Hz
	-95 dBc/Hz @ 100 kHz	-160dBc/Hz

PROTECTION

VOLTAGE	OVERTEMP	VSWR
SMART ALARMS IN THE M&C	MICROPHONIC	CURRENT

ENVIRONMENT SPECIFICATIONS

Environmental MIL-STD	Compliant with MIL-STD810E
Vibration MIL-STD	MIL-STD810F, Method 514.5 C-2 Transport
Operating Temperature Range	- 40° C to + 70°C
Storage Temperature Range	- 60°C to + 85°C
Fan Rating / Field Replaceable	IP 68, Field Interchangeable
Humidity	100% Condensing, IP67 Rated
Shock	20 g peak, 11 msec, 1/2 sine
Altitude	21,500ft, 6,500m
Cooling	Customer Supplied Mounted Cooling Baseplate

GAIN

Gain (Temperature Compensated)	66dB(min) 70 dB(typ.)
TX Gain Flatness	± 0.75 dB max. over 40 MHz
TX Gain variation 50MHz	± 0.5 dB
TX Gain variation 500MHz	± 1.5 dB

PART NUMBERING SYSTEM

ARD - Amkom's "Redundancy" System Kit
 KU - Universal Ku-Band 13.75 - 14.50 GHz
 KS - Standard Ku-Band 14.0 - 14.5 GHz
 16D|20D|30D|40D - Output Rated Power (BUCs with DC powered option)
 40A|50A|60A - Output Rated Power (BUCs with AC powered option)
 80A|100A|125A - High Power BUCs with AC powered option
 N - 50 Ohm IF Input Connector Type | F - 75 Ohm IF Input Connector Type
 H - Handheld Controller optional
 C - Custom options
 N | F - 50 Ohm or 75 Ohm IF Input Connector Type
 R - 10 MHz Ref. Auto Sense | Internal Reference
 K - FSK Option
 U - Universal Mounting Bracket
 J - Weatherproof DC/RJ45 Cable Dongle
 C xxxx - Custom RAL Color Code
 L - Custom Language
 P - Custom Part number
 B - Custom Label
 G - Custom Logo
 T- Redundancy Ready
 H - High Gain (+79dB - 82dB)
 W - Weatherproof Pelican Style Case
 O - Other Custom Option
 X- Custom Cable



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INPUT|OUTPUT INTERFACE

IF Connector	N-type (50 Ohm) F-type (75 Ohm)
Universal Prime Power via IF or MS/M&C Connector (7.0)	+ 22 - 55 VDC + 85 - 260 VAC 50 - 60 Hz
Output VSWR	1.3:1
Output Interface	WR75 Grooved
Input VSWR	1.5:1
RX Rejection	Internal RX Reject Filter

M&C INTERFACE

Advanced Monitor & Control	Ethernet Web Page Based, SNMP, RS232/485, FSK (opt.)
ALARMS	PLL LOCK, HPA, VSWR, MUTE, TX
Stealth PLin Operation Mode	LED Shut-Off

MECHANICAL SPECIFICATIONS

Dimensions	18.8" x 17.4" x 5.1" (477×441×130 mm)
Weight	16lbs (7.3kg) for 16-60W 28lbs (12.7kg) for 80-125W
Finish	Painted Matte Grey

