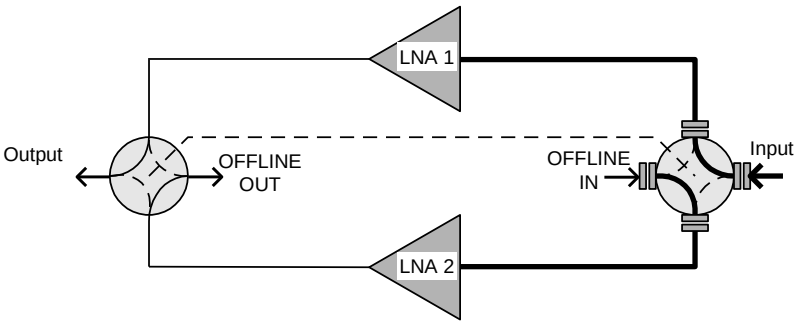
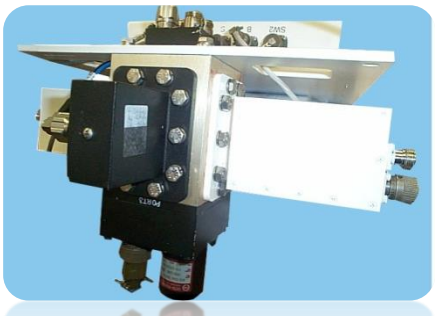
AWLA – C/X/Ku
Redundant LNA/LNB Systems - C/X/Ku Band

Introduction

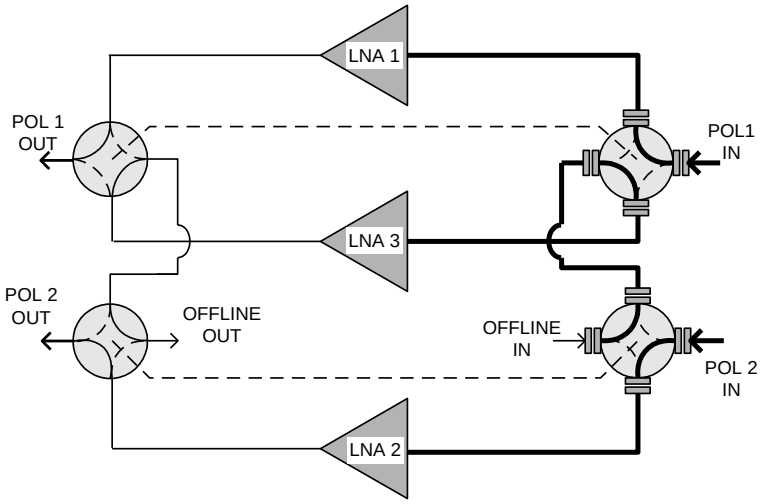
• Redundant LNA/LNB systems minimize system downtime due to LNA or LNB failure by providing a hot spare LNA/LNB and an automatic means of switching to the hot spare once a primary link is failed.

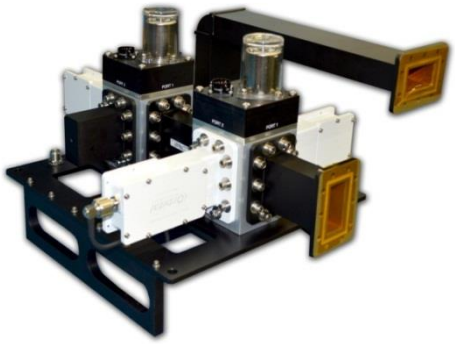
• At the heart of all Advantech Wireless AWLA series redundant LNA/LNB systems are field-proven LNA (Low Noise Amplifier) product lines. All common C, Ku and X-band frequencies are available, and have state-of–the-art noise temperature performance. These LNAs can be used in 1:1 and 1:2 redundant systems. Typically, the systems consist of an outdoor redundant controller that is mounted in the antenna hub and an indoor control panel (option).





1:1 redundant LNA system





1:2 redundant LNA system

LNA/LNB redundant controller features

- Compact plate mounted monitor & control system with RS-485 & RS-232 interfaces
- Dual power supplies
- High quality waveguide/coaxial switches
- LNA current monitoring to detect faults
- Automatically switching to standby LNA /LNB upon failure of a primary link
- Offline LNA I/O for test (optional)
- Advantech Wireless Low Noise Amplifiers, or third party LNBs

Control panel features (optional)

- Standard 19" rack panel, 3½" high
- User-friendly M&C provided locally as well as through a standard RS-485 serial interface
- Manual redundant operation
- Auto-ranging AC power supplies 85- 264 VAC @47 to 63 HZ

LNA/LNB redundant controller specifications	
Status Monitor Method	The plate controller monitors LNA/ LNB bias current. Alarm is generated if current is out of defined window size
Window Size	5% to ⌖25% of nominal
Switchover Time	100 ms
Serial I/O Interface	
RS-232	MS3116F10-6S; 9600, N, 8,1, Terminal mode
4-wires RS-485	MS3116F10-6S; Advantech protocol
AC Power Input	MS3106F10-3S; 220 VAC ± 15% or 110 VAC ± 10%.
Temperature: Operating Storage	-40°C to +55°C -55°C to +85°C
Relative Humidity:	100% max., condensing
Altitude:	10,000 feet AMSL, de-rated 2°C/1,000 feet from AMSL

Ordering Information

A complete model number for ordering consists of a basic number followed by a four-field option code, as follows:

AWLA - C1	C-band 1:1 redundant LNA system
AWLA - C2	C-band 1:2 redundant LNA system
AWLA – Ku1	Ku-band 1:1 redundant LNA system
AWLA – Ku2	Ku-band 1:2 redundant LNA system
AWLA – X1	X-band 1:1 redundant LNA system
AWLA – X2	X-band 1:2 redundant LNA system

Note: For redundant LNB systems, add the suffix-B. For example: AWLA-Ku2-B is a 1:2 redundant Ku-band LNB system

Note 2: Add an N at the end of the model number if LNB not included. For example: AWLA - C2 - N

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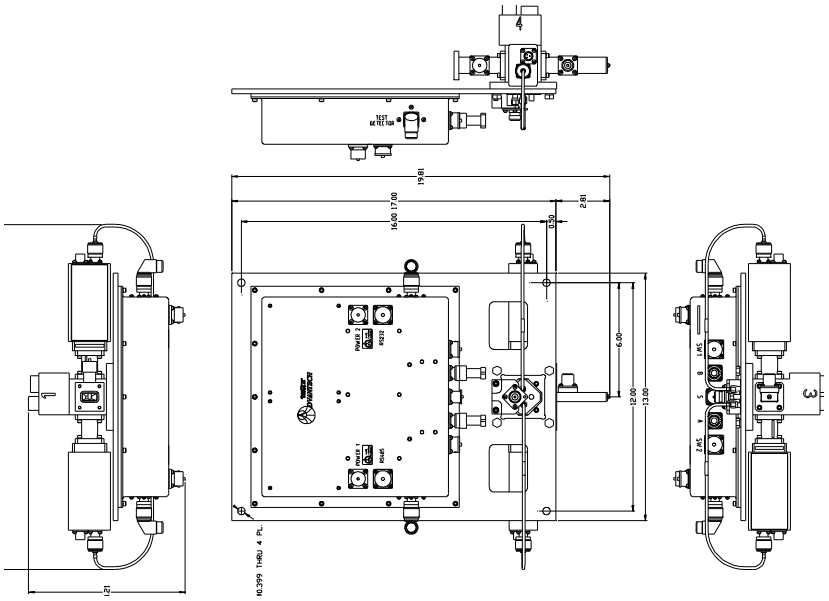

Figure A. Outline drawing of 1:1 Ku-band redundant system

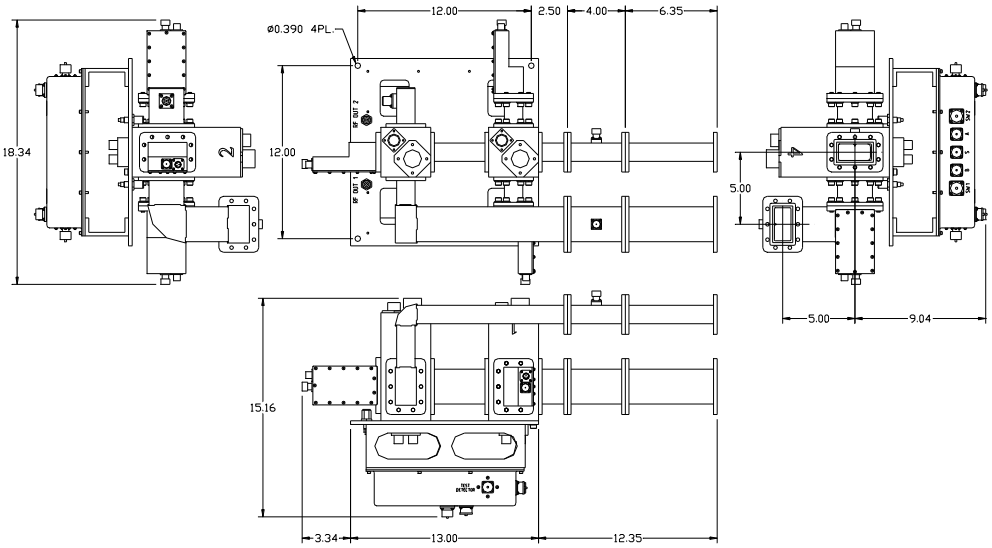

Figure B. Outline drawing of 1:2 C-band redundant system

Ref.: PB-AWLA-C-X-KU-18198

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