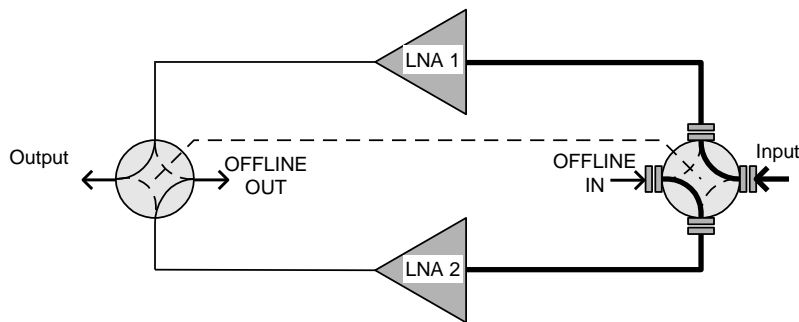


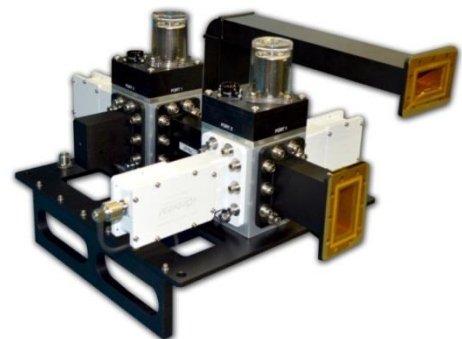
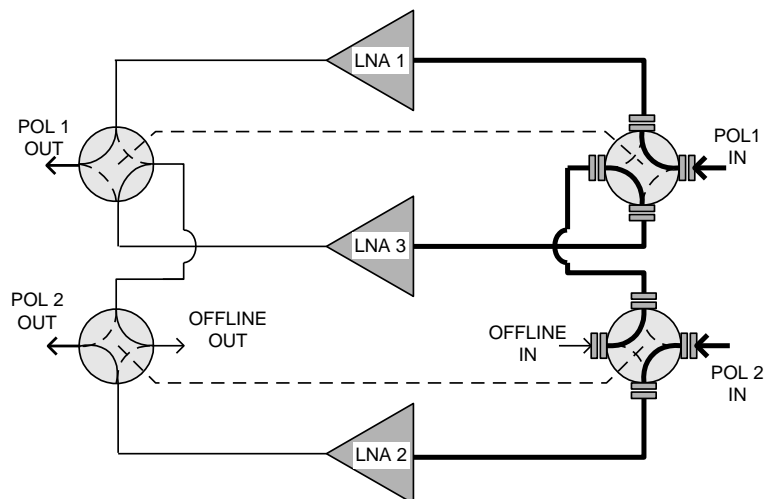


INTRODUCTION

- 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 \pm 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 \pm 15% or 110 VAC \pm 10%.
Temperature: Operating	-40°C to +55°C
Storage	-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

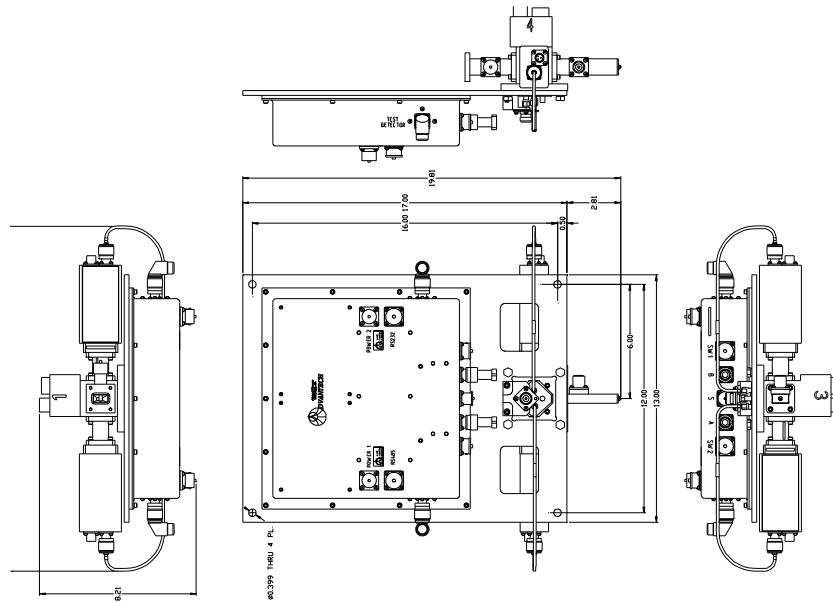


Figure A. Outline drawing of 1:1 Ku-band redundant system

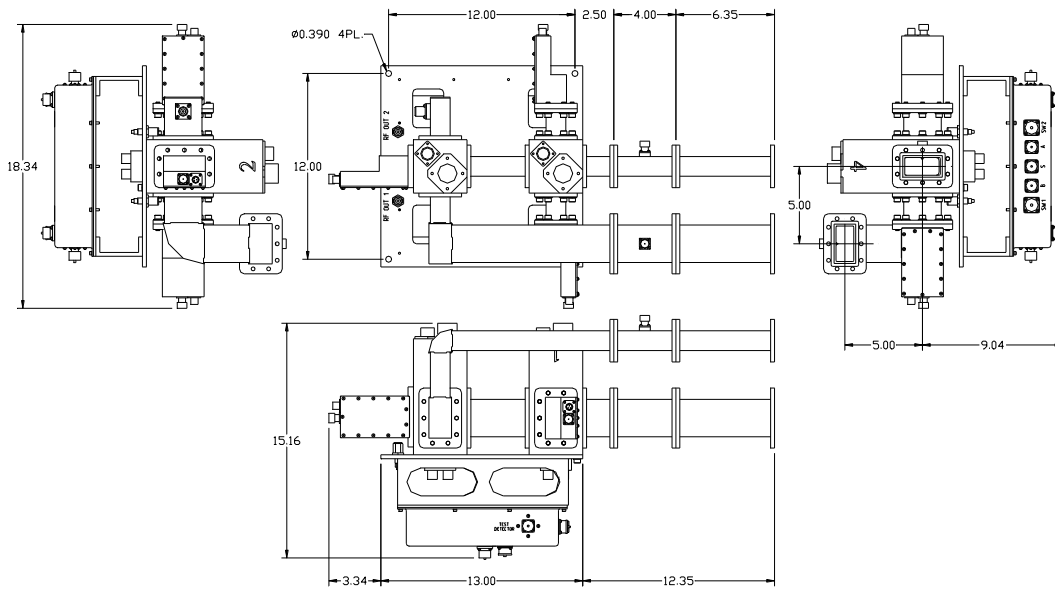


Figure B. Outline drawing of 1:2 C-band redundant system