



## Orbital Loss of Lock Alarm



The Orbital Research Loss of Lock Alarm (LOLA) provides continuous monitoring and notification to operators and system controllers. During operations, if the internal phase locked loop loses lock, whether due to external reference instability or adverse internal conditions, an on-board controller issues a Loss of Lock Alarm. The alarm may be indicated as a flashing LED, serial message via the RS-485 port or a repeating 50mA power-line beacon.

- Continuous monitoring of phase lock
- Visual indicator option
- RS485 option
- Powerline beacon option

This feature speeds up local and remote troubleshooting.

### ENVIRONMENTAL

Operating Temp	see LNB datasheet
Non-operating Temp	see LNB datasheet
Relative Humidity	see LNB datasheet

### MECHANICAL

Size	No increases to LNB sizes, see LNB datasheets
Weight	
	Ka MULTILO 50 g extra, 535 g total
	Ku LNB no extra weight
	Ka/Ku BDC no extra weight

### POWER SPECIFICATIONS

Input DC Voltage	+17 to +24 VDC
Current consumption	80mA in addition to base LNB

Power Input	Output IF connector
-------------	---------------------

### FUNCTIONAL SPECIFICATIONS (when active)

Powerline Beacon	40 to 80mA, 1 Hz, 10% duty
RS-485	Sent as status message when host interrogates
LED	Red, flashing

## COMPATIBILITY

LED LOLA requires Push Button option

RS-485 LOLA requires Remote Data Connection Option

Powerline Beacon LOLA is not compatible with Push Button or Remote Connection

### LNB's

	LED	RS485	Powerline Beacon
<b>Ka MULTI LO EXT REF - Ka-band LNB with multiple local oscillators</b>			
Airborne			✓
Heater			✓
<b>Ku FIXED LO EXT REF - Ku-band LNB with fixed local oscillators</b>			
Gain Modifications	✓	✓	✓
Temperature compensated gain	✓	✓	✓
Custom LO	✓	✓	✓
Wideband	✓	✓	✓
Airborne			✓
Heater			✓
<b>Ku MULTI LO EXT REF - Ku-band LNB with multiple local oscillators</b>			
Gain Modifications	✓	✓	✓
Temperature compensated gain	✓	✓	✓
Custom LO's	✓	✓	✓
Wideband	✓	✓	✓
Airborne			✓
Heater			✓

### BDC's

	LED	RS485	Powerline Beacon
<b>BDCKAMULTIPLELO - Ka-band BDC with multiple local oscillators</b>			
DC Level band Switching			✓
Push Button Band Switching	✓		✓
Open Collector Input Band Switching			✓
Remote Data Connection for M&C		✓	✓
Extended Temp to +70°C	✓	✓	✓
Improved Gain Over Temp	✓	✓	✓
Airborne			✓
<b>BDCKAFIXED - Ka-band BDC with fixed local oscillators</b>			
Remote Data Connection for M&C		✓	
Extended Temp to +70°C	✓	✓	✓
Improved Gain Over Temp	✓	✓	✓
Airborne			✓
<b>BDCKUMULTIPLELO - Ku-band BDC with multiple local oscillators</b>			
DC Level band Switching			✓
Push Button Band Switching	✓		✓
Open Collector Input Band Switching			✓
Remote Data Connection for M&C		✓	✓
Extended Temp to +70°C	✓	✓	✓
Improved Gain Over Temp	✓	✓	✓
Airborne			✓
<b>BDCKUFIXEDLO - Ku-band BDC with fixed local oscillators</b>			
Remote Data Connection for M&C		✓	
Extended Temp to +70°C	✓	✓	✓
Improved Gain Over Temp	✓	✓	✓
Airborne			✓