



# QUAD POLAR LNB

## 4 Fully Switched Output CP/LP LNB

SIMULTANEOUS RECEPTION of LINEAR & CIRCULAR POLARIZATION



**This LNB is for the simultaneous reception of Circular & Linear Satellites at the same orbital position.**  
**2 outputs Linear polarized (V & H) switched**  
**2 outputs Circular polarized (LHC & RHC) switched**

### QPH-031

<b>1</b>	<b>Input Frequency</b> FSS Band (Linear polarization) BSS Band (Circular Polarization)	11.7 - 12.2 GHz 12.2 - 12.7 GHz
<b>2</b>	<b>Output Frequency</b> FSS Band BSS Band	950 - 1450 MHz 950 - 1450 MHz
<b>3</b>	<b>Noise Figure</b> QPH-031 QPF-031	0.3 dB typ 0.3 dB typ
<b>4</b>	<b>Gain</b>	50 - 60 dB
<b>5</b>	<b>Gain Ripple</b> 26 MHz bandwidth CP Band LP Band	<+/- 0.5 dB <5 dB typ <5 dB typ
<b>6</b>	<b>Local Oscillator Frequency</b> Low High	10.75 GHz 11.25 GHz
<b>7</b>	<b>Local Oscillator Phase Noise (typ)</b> 1kHz 10kHz 100kHz	-65 dBc/Hz -95 dBc/Hz -110 dBc/Hz
<b>8</b>	<b>Local Oscillator stability</b>	+/-1 MHz typ
<b>9</b>	<b>Current Consumption</b> One Receiver Each Additional Receiver	Less than 100mA typ 5mA typ
<b>10</b>	<b>Image Rejection</b>	>40 dB

### QPF-031

<b>11</b>	<b>Isolation</b> LP Cross Polar isolation CP Cross Polar Isolation	> 30 dB > 23 dB
<b>12</b>	<b>Two Tone 3rd Order intercept point (output)</b>	>10 dBm
<b>13</b>	<b>Output Connector</b> Impedance Return Loss	4x female F-Type 75 Ohm >10 dB
<b>14</b>	<b>Operating Temperature Range</b> Storage Temp Range	-40°C to +70°C -40°C to +70°C
<b>15</b>	<b>Band Polarization Selection</b> Signals applied to F-type connector	
	<b>Ports 1 &amp; 3 Linear polarization</b> Vertical Horizontal	11.5V to 14V 15.5V to 19V
	<b>Ports 2 &amp; 4 Circular polarization</b> Right hand CP Left hand CP	11.5V to 14V 15.5V to 19V
<b>16</b>	<b>Spurious</b> Primarily 1000MHz & 500MHz	<-65 dBm
<b>18</b>	<b>Output Gain Difference</b> ( between the outputs in 26MHz Bandwidth )	<6 dB
<b>18</b>	<b>QPF-031 Interface</b> QPH-031	18.5mm Ø Waveguide, C120 Flange Off-set Parabola Matched, F/D 0.65 Frequency Compensated Feed Horn, 40mm Dish Clamp.