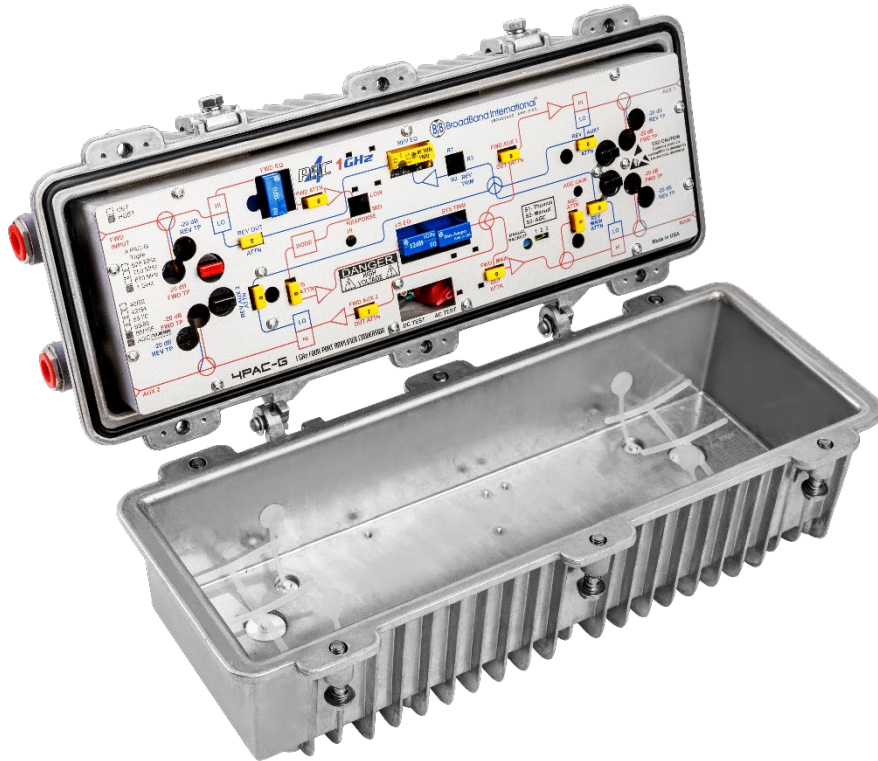


1 GHz System Amplifiers 4PAC-G HGD (High Gain Dual)

Replaces/Upgrades Cisco®/Scientific Atlanta®
550/625/750/870 MHz Systems



The 4PAC-G HGD enhanced system amplifier module from Broadband International® is designed to drop into any existing SA II, III or GainMaker® system amplifier housing. The forward bandwidth is up to 1 GHz and may be optimized for any bandwidth from 550 to 1 GHz. This is accomplished by alignment of the interstage response network and by the type of cable equalizers utilized. Performance may be optimized by the choice of hybrids to achieve different operating gains.

The amplifier accepts any standard GainMaker® style equalizer and long JXP style pads. The unit can be ordered with a high efficiency power supply that is built into the back of the amplifier or will accept the standard power plug from any existing GainMaker® power pack. The use of plug-in hybrids makes this system amplifier easier to service than the OEM models now offered utilizing surface-mounted gain blocks.

Features:

- Specified bandwidth performance from 550 MHz up to 1 GHz
- Utilizes GainMaker® style plug-in equalizers and pads
- Multiple options for return path bandwidth and removable duplex filters
- Plug-in hybrid technology
- Choice of utilizing built-in power pack or OEM lid mount power supply
- **Patented non-service-interrupting Selectable Jumper Equalizers available**

**1 GHz HGD – 4-Port Amplifier Modules for Upgrading
Cisco®/Scientific Atlanta 550/625/750/870 MHz systems**



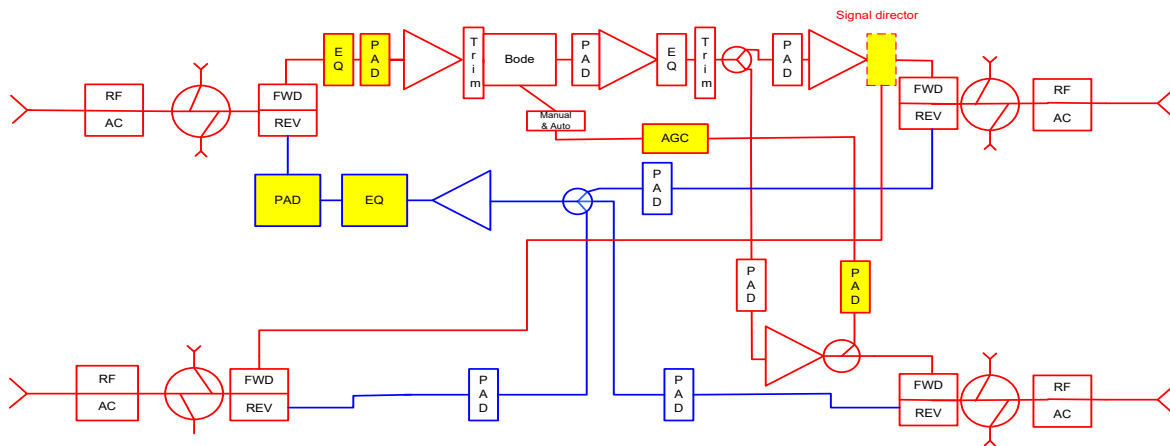
The interstage EQ and Pad set the output gain and slope for maximum performance. Selectable Jumper Equalizers can be utilized in the input or interstage equalizer locations to improve system reliability. These equalizers allow the technician to change equalizer values without interrupting service by utilizing a patented make before break technology.

4PAC-G HGD – FAST-PAC Amplifier Conversion Performance to 1 GHz				
Analog Channels	79	95	110	Return
*** HGD Network Amplifier ***				
Frequency Response (dB)	+/- 0.5	+/- 0.5	+/- 0.5	+/- 0.5
Return Loss (-dB)	16	16	16	16
Noise Figure (-dB)	8	8	8	12
Full Gain (dB)	45	45	45	19
Operating Gain (dB)	41	41	41	19
Auto Gain Control Range (dB)	Auto +/-0.25 dB for +3/-5 input variance			PAD
AC Hum Mod @ 10A (-dB)[15A max]	-65	-65	-65	N/A
Recommended Output Level	49/35	49/35	49/35	35-40
Output Slope (typical)	14	14	14	N/A
Output Hybrid Technology	GaAs PD	GaAs PD	GaAs PD	Si PP
Composite Triple Beat	79	74	66	90
Cross-Modulation	74	69	64	82
Composite Second Order	80	76	71	80

4PAC-G HGD	With BBI PS		AC Voltage										
	I DC		90	85	80	75	70	65	60	55	50	45	40
Thermal	1.54	AC current draw	0.75	0.76	0.81	0.83	0.89	0.93	1	1.09	1.18	1.32	1.45
AGC	1.60	AC current draw	0.77	0.78	0.83	0.85	0.91	0.96	1.03	1.12	1.21	1.36	1.49

4PAC-G HGD Diagram and Ordering Information

The following Required Accessories highlighted in yellow must be ordered separately (all other pads and equalizers are provided)



The Broadband International 4PAC-G amplifier can be configured in many different frequencies and options. Please consult your account representative for assistance with specific plug-in options.