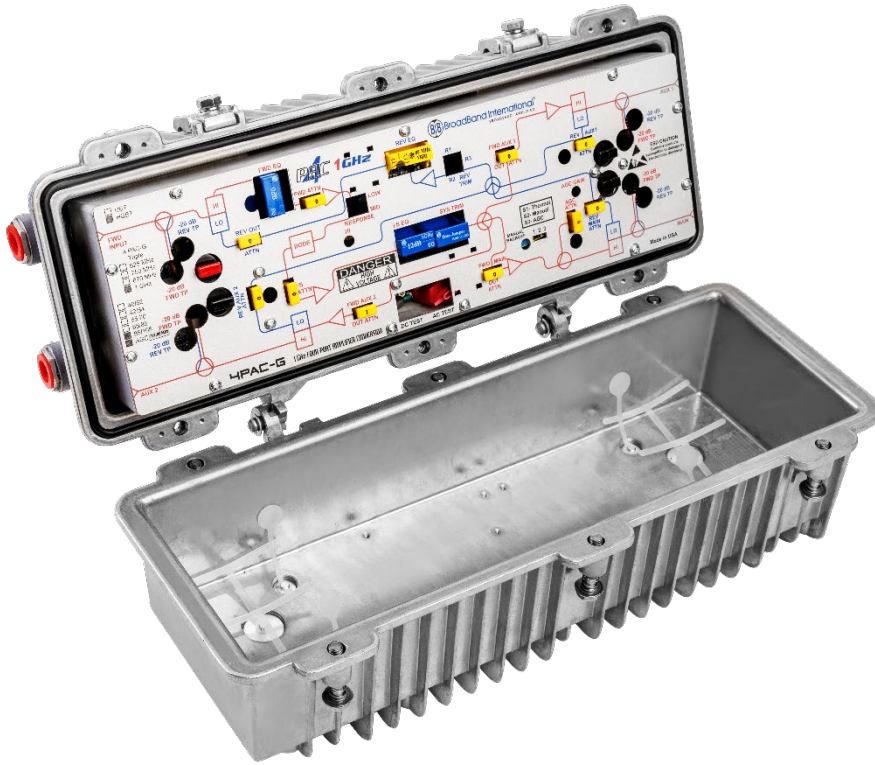


1 GHz System Amplifiers 4PAC-G UBT (Unbalanced Triple)

Replaces/Upgrades Cisco®/Scientific Atlanta®
550/625/750/870/1000 MHz Systems



The 4PAC-G UBT 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® plug-in equalizers and JXP style pads
- Multiple options for return path bandwidth
- GaAs plug-in hybrid technology
- Plug-in diplex filter for future reverse split changes
- Surge Protection Crowbar included
- Three QAM AGC frequencies available at 423, 609 and 711 MHz
- Five Analog AGC frequencies available at 427.25, 445.25, 499.25, 527.25 and 547.25 MHz
- New BBI housing available with Chromate Conversion coating



Numerous analog and QAM automatic gain controls modules (AGC) are available to meet your current and future system requirements.

4PAC-G UBT Amplifier Conversion Performance to 1 GHz			
Pass Band	MHz	105-1002	5 - 85
Frequency Response (Flatness)	dB	+/- 0.75	+/- 0.5
Return Loss	dB	16	16
Noise Figure	dB	8	8
Full Gain (Main/AUX)	dB	38/45	20
Operating Gain with AGC-4 dB back off (Main/AUX)	dB	34/41	20
Bode Control Range	dB	+/- 4	N/A
AC Hum Mod @ 12 Amperes	dBc	<-60	<-60
AC Hum Mod @ 15 Amperes	dBc	<-60	<-60
Reference Analog Output Level (Main/AUX)	dBmV	44/30.3 -50/36.3	35-40
Output Slope (typical)	dB	13.7	0
Hybrid Technology	dB	GaAs	Si PP
Test Points	dB	20 +/-1 dB)	20 +/-1 dB)
Noise and Distortion Performance (Main/AUX)	Units	Forward	Reverse
Composite Triple Beat-(Analog 109-550/256 QAM 558-1002 MHz)	dB	86/74	82
Cross-Modulation	dB	75/69	71
Composite Second Order	dB	79/74	81
Carrier to Intermodulation Noise (CIN)	dB	66/64	N/A
Amplifier Delay Characteristics			
Forward Chrominance to Luminance Delay ns/3.58 MHz		Reverse Group Delay 1.5 MHz	
Frequency (MHz)	Delay (ns)	Frequency (MHz)	Delay (ns)
109.25 to 112.83	15	5.0 to 6.5	65
115.25 to 118.83	8	6.5 to 8.0	24
121.25 to 124.83	5	8.0 to 9.5	12
		80.5 to 82	11
		82 to 83.5	13
		83.5 to 85	21
Powering Data	Units		
DC Voltage	VDC		24
DC Power Consumption- Manual	A		1.97
DC Power Consumption- with AGC	A		2.03
AC Input voltage range	VAC		38-90

All measurements at +68 degrees F – Specification subject to change without notice

