

1 GHz Line Extenders - 2PAC-GNA

Replaces/Upgrades ARRIS®/Philips®/Magnavox®
550/625/750/870/1000 MHz Systems



The 2PAC-GNA enhanced system amplifier module from Broadband International® is designed to drop into any existing ARRIS®/Philips®/Magnavox® 7 or 9 series 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.

Dual RF test points are provided for every cable port. The forward RF test port may also be used as the reverse sweep input ports with suitable RF sweep test equipment. All the test ports have directional couplers with a resistive pad to provide an accurate -20 dB reference level. Each port is a 75-ohm source and therefore does not require a special test probe.

Features:

- Specified bandwidth performance from 550 MHz up to 1 GHz
- Utilizes FAST-PAC™ style plug-in equalizers and pads
- Multiple options for return path bandwidth
- Gallium Arsenide (GaAs) plug-in hybrid technology
- Built-in high efficiency power pack
- Excellent distortion and noise performance
- Plug-in diplex filters and response boards for future reverse upgrades

**2PAC-GNA – 1 GHz Line Extenders for Replacing/Upgrading
ARRIS®/Philips®/Magnavox® 550/625/750/870/1000 MHz Systems**



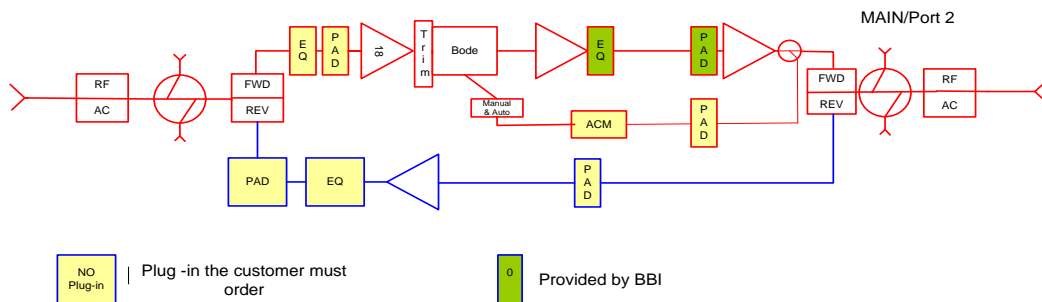
The FAST-PAC™ plug-in equalizers are a Broadband International® patented no-tune design. The attenuator pads have three ground pins to optimize RF impedance matching, as opposed to a single ground pin as used on other types of “normal” attenuator pads. Interstage pads for each forward output are supplied to optimize the signal levels at each stage for optimum performance up to 1 GHz. The return path can be padded before the input of the reverse gain block to ensure unity gain in the reverse path alignment.

2PAC-GNA – FAST-PAC™ LE Amplifier Conversion Performance to 1 GHz				
Analog Channels	77	93	108	Return
2PAC-GNA				
Frequency Response (dB)	+/- 0.75	+/- 0.75	+/- 0.75	+/- 0.5
Return Loss (-dB)	16	16	16	16
Noise Figure (-dB)	8	8	8	12
Full Gain (dB)	43	43	43	19
Operating Gain (dB)	40	40	40	19
Auto Gain Control Range (dB)	Auto +/-0.25 for +3/-5 input variance			
Bode Slope Range (dB)	6 (+EQ)	6 (+EQ)	6 (+EQ)	EQ
AC Hum Mod @ 10A (-dB)[15A max]	-65	-65	-65	N/A
Output Level (1003 MHz/55 MHz)	53/41	53/41	53/41	35-40
Output Slope (typical)	14	14	14	N/A
Output Hybrid Technology	GaAs PD	GaAs PD	GaAs PD	Si PP
Composite Triple Beat	82	70	66	90
Cross-Modulation	78	66	64	82
Composite Second Order	80	78	75	80

2PAC-GNA	Regular Gain with BBI PS		AC Voltage										
			90	85	80	75	70	65	60	55	50	45	40
Manual	1.10	AC current draw	0.47	0.48	0.5	0.51	0.52	0.55	0.59	0.63	0.71	0.82	0.97
AGC	1.16	AC current draw	0.49	0.5	0.51	0.53	0.54	0.57	0.61	0.68	0.76	0.87	1.04

2PAC-GNA 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® 2PAC-GNA can be configured in many different frequencies and options. Please consult your account representative for assistance with specific plug-in options.