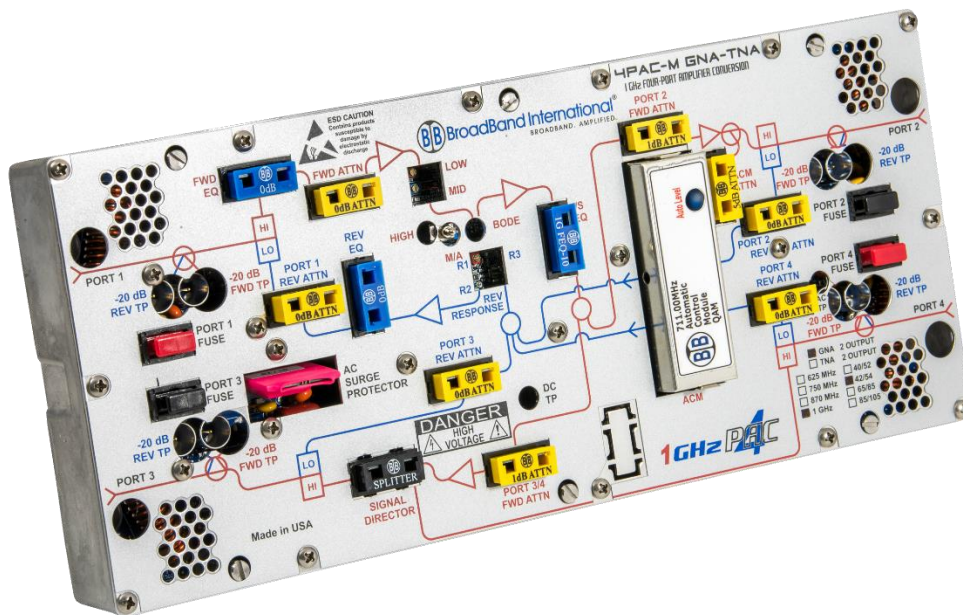


1 GHz System Amplifiers 4PAC-M TNA (2-Output)

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



The 4PAC-M TNA 2-output enhanced system amplifier module from BroadBand International® is designed to drop into any existing ARRIS®/Philips®/Magnavox® TNA 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 GaAs hybrids to achieve different operating gains.

Dual RF test ports are provided for every cable port. The forward RF test ports 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
- Removable duplex filters for future reverse upgrades

**4PAC-M TNA 2-Output – 1 GHz System Amplifiers for Replacing/Upgrading
ARRIS®/Philips®/Magnavox® TNA 550/625/750/870 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 state for optimum performance up to 1 GHz. Each return path can be padded before the input of the reverse gain block to ensure unity gain in the reverse path alignment.

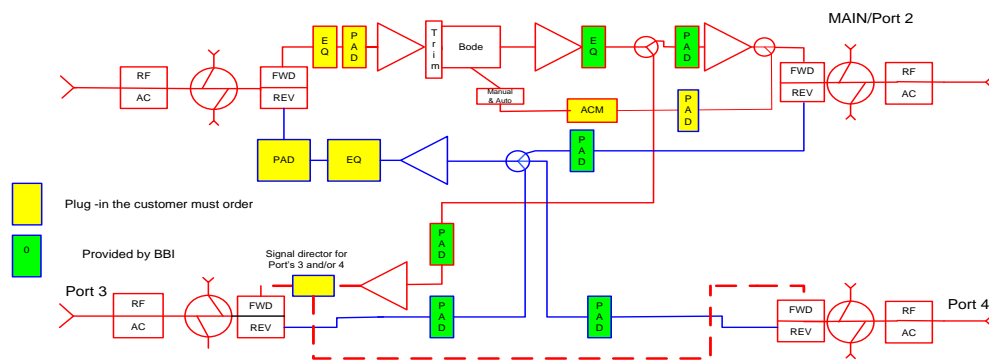
4PAC-M TNA 2-Output – FAST-PAC™ Amplifier Conversion Performance to 1 GHz				
Analog Channels	77	93	108	Return
***4PAC-M TNA Network Amplifier ***				
Frequency Response (dB)	+/- 0.75	+/- 0.75	+/- 0.75	+/- 0.5
Return Loss (-dB)	16	16	16	16
Noise Figure (-dB)	8	8	8	8
Full Gain (dB) Main Port	36.5	36.5	36.5	19
Operating Gain (dB) (Main Port)	33.5	33.5	33.5	19
Operating Gain (dB) (AUX Port with jumper)	40	40	40	19
Auto Gain Control Range (dB)	Auto +/-0.25 dB 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 Slope (typical)	14.5	14.5	14.5	N/A
Output Hybrid Technology	GaAs PD	GaAs PD	GaAs PD	Si PP
Composite Triple Beat – MAIN	82	70	66	90
Cross-Modulation – MAIN	78	66	64	82
Composite Second Order - MAIN	80	78	75	80

4PAC-M TNA 2-output	Regular Gain		AC Voltage										
	1 DC		90	85	80	75	70	65	60	55	50	45	40
Manual	1.49	AC current draw	0.74	0.76	0.79	0.83	0.87	0.92	0.98	1.06	1.12	1.25	1.39
AGC	1.56	AC current draw	0.76	0.78	0.81	0.85	0.89	0.95	1.01	1.09	1.15	1.29	1.43

4PAC-M TNA 2-Output Diagram and Ordering Information

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

BROADBAND INTERNATIONAL 4 PAC TNA



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