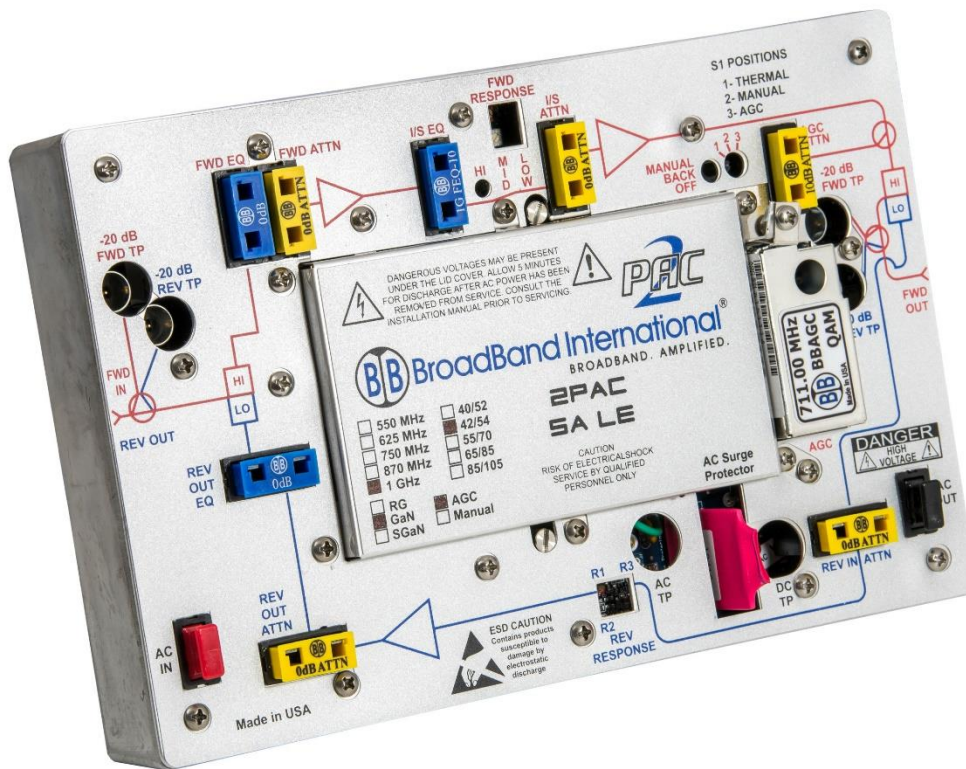


1 GHz Line Extenders – 2PAC-S (SHG)

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



Features:

- Superior high output performance at 1 GHz
- Utilizes FAST-PAC™ style plug-in equalizers and pads
- Multiple options for return path bandwidth with plug-in diplex filters
- All GaN plug-in hybrid technology
- Plug-in diplex filters
- Multiple analog or QAM AGC options

The Super High Gain 2PAC-S enhanced system amplifier module from Broadband International® is designed to drop into any existing Scientific Atlanta® line extender housing. The high output levels deliver superior performance by utilizing a GaN input and output hybrid 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 GaN hybrids to achieve different operating gains.



The use of plug-in hybrids makes this system amplifier easier to service than many of the OEM models now offered utilizing surface-mounted gain blocks. The internal losses of our design have been minimized to provide the lowest possible RF distortions. The 2PAC-S is designed as a drop in solution for older 400 to 870 MHz systems. Plug-in diplex filters can be changed in the field if a different reverse split is ever required.

Higher operating output levels can achieve longer cable runs between actives. This additional gain and increased operating levels reduces the cascaded number of amplifiers in many cases.

The interstage EQ and pad sets the output gain and slope for maximum performance. The forward output RF test port may also be utilized as a reverse sweep input port with suitable RF sweep test equipment. All the test ports are directional couplers with a resistive pad to provide an accurate -20 dB reference level.

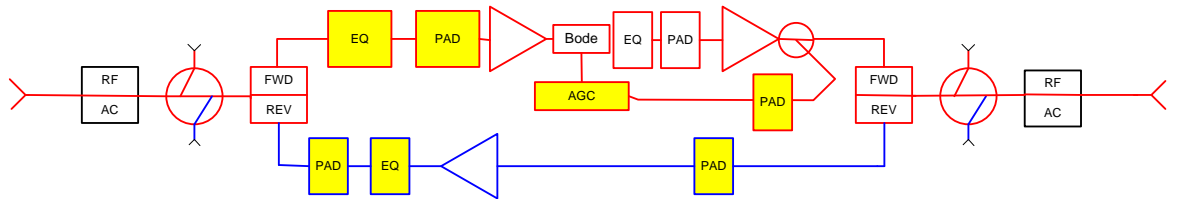
2PAC-S (SHG) – FAST-PAC™ LE Amplifier Conversion Performance to 1 GHz		
Analog Channels	79 + DIG	Return
2PAC-S Line Extender		
Frequency Response (dB)	+/- 0.75	+/- 0.5
Return Loss (-dB)	16	16
Noise Figure (-dB)	8	8
Operational Gain - Manual	43	20
Operational Gain - Thermal	38	20
Operational Gain - AGC	37	20
Slope Range (dB)	8 (+EQ)	EQ
AC Hum Mod @ 10A (-dB)[15A max]	-65	-65
Output Level (typical)	55	40
Output Slope (typical)	14	N/A
Input Hybrid Technology	GaN PP	N/A
Output Hybrid Technology	GaN PD	Si PP
Composite Triple Beat (Manual)	72	90
Cross-Modulation (Manual)	67	82
Composite Second Order (Manual)	76	80
Composite Triple Beat (AGC)	67	90
Cross-Modulation (AGC)	65	82
Composite Second Order (AGC)	74	80

2PAC-S	Super High Gain (SHG)		AC Voltage										
			90	85	80	75	70	65	60	55	50	45	40
Manual	0.84	AC current draw	0.47	0.49	0.51	0.53	0.56	0.6	0.64	0.68	0.75	0.81	0.85
AGC	0.94	AC current draw	0.53	0.55	0.57	0.6	0.64	0.68	0.72	0.78	0.84	0.92	0.94

2PAC-S (SHG) Diagram and Ordering Information

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

BROADBAND INTERNATIONAL 2 PAC - AGC



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