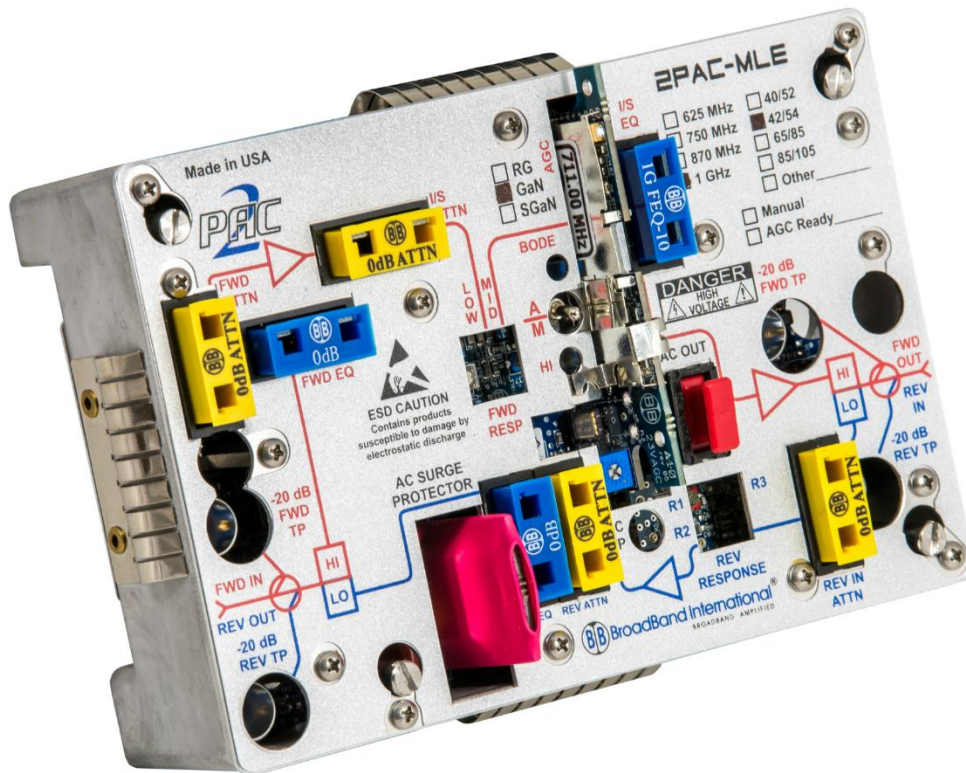


# 1 GHz Line Extenders - 2PAC-MLE Super High Gain (SHG)

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



## 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
- GaN plug-in hybrid technology
- Plug-in diplex filters
- Multiple analog or QAM AGC options

The Super High Gain 2PAC-MLE enhanced system amplifier module from BroadBand International® is designed to drop into any existing Magnavox® line extender 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 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.

**2PAC-MLE (SHG) – 1 GHz Line Extenders for Replacing/Upgrading  
ARRIS®/Philips®/Magnavox® 550/625/750/870 MHz Systems**



The 2PAC-MLE 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 reduce 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.

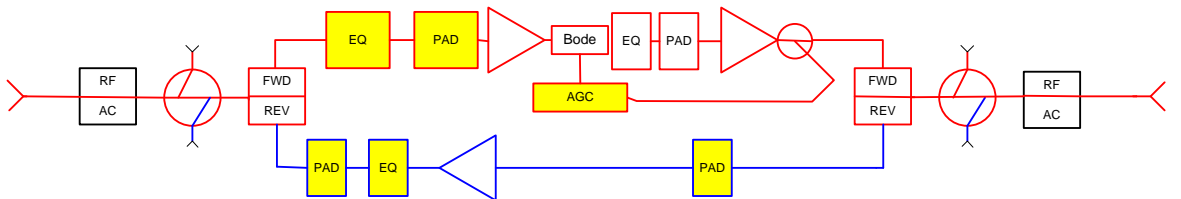
<b>2PAC-MLE (SHG) – FAST-PAC™ LE Amplifier Conversion Performance to 1 GHz</b>				
<b>Analog Channels</b>	<b>79</b>	<b>95</b>	<b>110</b>	<b>Return</b>
<b>***2PAC-MLE (SHG) Line Extender***</b>	-20 dB (+-1 dB) Dual Test Points on ALL Ports			
<b>Frequency Response (dB)</b>	+/- 0.75	+/- 0.75	+/- 0.75	+/- 0.5
<b>Return Loss (-dB)</b>	16	16	16	16
<b>Noise Figure (-dB)</b>	8	8	8	
<b>Operational Gain - Manual</b>	43	43	43	20
<b>Operational Gain - AGC</b>	38	38	38	20
<b>Slope Range (dB)</b>	8 (+EQ)	8 (+EQ)	8 (+EQ)	EQ
<b>AC Hum Mod @ 10A (-dB)[15A max]</b>	-65	-65	-65	-65
<b>Output Level (typical)</b>	51-55	51-55	51-55	40
<b>Output Slope (typical)</b>	14.5	14.5	14.5	N/A
<b>Input Hybrid Technology</b>	GaN PP	GaN PP	GaN PP	N/A
<b>Output Hybrid Technology</b>	GaN PD	GaN PD	GaN PD	Si PP
<b>Composite Triple Beat (AGC)</b>	70	68	65	90
<b>Cross-Modulation (AGC)</b>	65	63	62	82
<b>Composite Second Order (AGC)</b>	73	71	69	80

2PAC-MLE	Super High Gain (SHG)		AC Voltage										
	I DC		90	85	80	75	70	65	60	55	50	45	40
<b>Manual</b>	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
<b>AGC</b>	0.92	AC current draw	0.52	0.54	0.56	0.59	0.63	0.67	0.71	0.77	0.83	0.91	0.93

## 2PAC-MLE (SHG) -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 2 PAC - AGC



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