

# 1 GHz Line Extenders - 2PAC-MOT (RG)



## Replaces/Upgrades ARRIS®/Motorola® JLX and BLE 550/625/750/870 Systems

The 2PAC-MOT enhanced system amplifier module from Broadband International® is designed to drop into your existing JLX and BLE 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.

The 2PAC-MOT is designed as a drop in solution for older 400 MHz to 1 GHz systems. Plug-in diplex filters can be changed in the field if a different reverse split is ever required.

Higher operating outputs 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.

### Features:

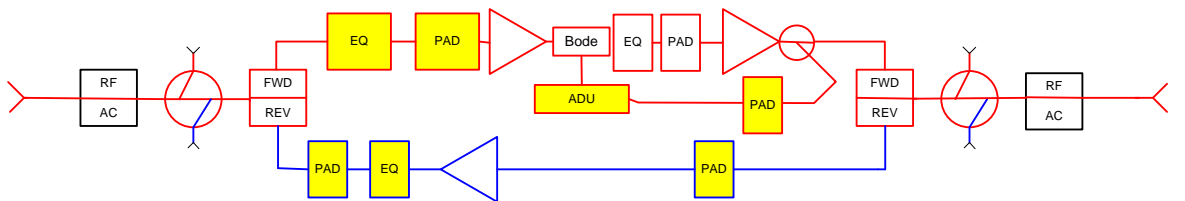
- **Specified bandwidth performance from 550 MHz up to 1 GHz**
- **Utilizes FAST-PAC™ style plug-in pads and equalizers**
- **Multiple options for return path bandwidth**
- **GaAs plug-in hybrid technology**
- **Plug-in diplex filters**
- **Multiple analog or QAM AGC options**
- **Complete housing available with Chromate Conversion**
- **Housing Lid Cover Kit available to upgrade any shallow lid cover JLX/BLE legacy OEM housing**

2PAC-MOT BLE – Regular Gain (RG) - Performance to 1 GHz				
Analog Channels	79	95	110	Return
2PAC-MOT BLE – Regular Gain (RG)	-20 dB (+/- 1 dB) dual test points on ALL ports			
Frequency Response (dB)	+/- 0.75	+/- 0.75	+/- 0.75	+/- 0.5
Return Loss (-dB)	16	16	16	16
Noise Figure (-dB)	8	8	8	
Operational Gain - Manual	38	38	38	20
Operational Gain - AGC	33	33	33	20
Slope Range (dB)	8 (+EQ)	8 (+EQ)	8 (+EQ)	EQ
AC Hum Mod @ 10A (-dB)[15A max]	-65	-65	-65	-65
Output Level (typical)	51	51	51	40
Output Slope (typical)	14.5	14.5	14.5	N/A
Input Hybrid Technology	GaAs PP	GaAs PP	GaAs PP	N/A
Output Hybrid Technology	GaAs PD	GaAs PD	GaAs PD	Si PP
Composite Triple Beat	70	68	65	90
Cross-Modulation	65	63	62	82
Composite Second Order	73	71	69	80

2PAC-MOT	Regular Gain (RG)	AC Voltage											
		I DC	90	85	80	75	70	65	60	55	50	45	40
Manual	0.82	AC current draw	0.44	0.46	0.47	0.49	0.52	0.55	0.58	0.62	0.67	0.74	0.82
AGC	0.92	AC current draw	0.47	0.5	0.52	0.55	0.57	0.6	0.65	0.69	0.75	0.82	0.91

## 2PAC-MOT - 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-MOT amplifier can be configured in many different frequencies. The following is a basic list of plug-in accessories required to activate the module. Please consult your account representative for assistance.

Specifications reflect the typical performance at room temperature. Specifications are subject to change without prior written notice.