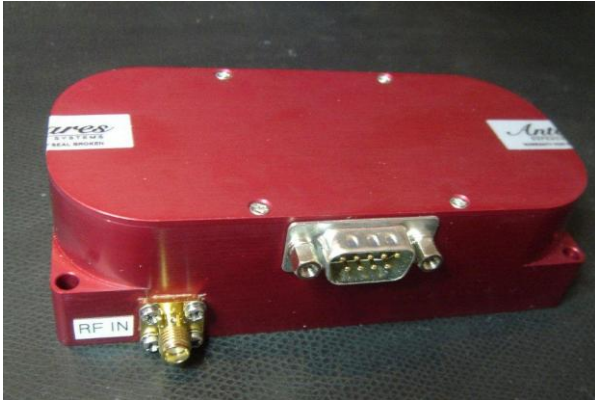


# PRODUCT DATASHEET v5

## MP1BN 20MHz-520MHz 20W PA



- 20MHz to 520MHz
- Variable Power 10W to 30W
- Efficiency to 55%
- Compact, Lightweight, Robust

MP1BN is a new generation of manpack/portable PA's which are capable of variable Psat power by user variation of input voltage. High efficiency is maintained through voltage variation. MP1BN is available in 260g housing or can be integrated into the customers system at approximately 50g.

PARAMETER	MINIMUM	MAXIMUM	TYPICAL	COMMENTS
Frequency	20 MHz	520 MHz		Wider bandwidth under development
Psat Power @ 20V	11W	16W	15W	30W Maximum DC power consumption
Psat Power @ 28V	20W	27W	25W	55W Maximum DC power consumption
Psat Power @ 30V	21W	29W	27W	63W Maximum DC power consumption
Gain @ Psat	45dB		50dB	Max input +4dBm
Gain variation			±1.5dB	@Psat
Harmonics	-25dBc	-9dBc	-15dBc	2 <sup>nd</sup> Harmonic @ Psat
Current Consumption @20V	1.1A	1.6A	1.4A	Typical 54% efficient @ Psat Power
Current Consumption @28V	1.5A	2A	1.8A	Typical 50% efficient @ Psat Power
Current Consumption @30V	1.5A	2.1A	1.9A	Typical 47% efficient @ Psat Power
Input voltage	20V	30V		
Standard Rise Time			5µs	Low shutdown current 150mA (Pin 4 D-type)
Enhanced Rise Time			900ns	Sargas switching (Pin 5 D-type)
Intermodulation @28V	-18dBc		-20dBc	Two 5W tones, 1MHz Spacing
Dimensions WxLxH				120mm x 55mm x 30mm
Weight			260g	Integrated without housing @ approx 50g
Connectors				SMA & 9 Pin D-type
VSWR Monitor Option				Increase length to 135mm
Operating Temperature	-20°C	+80°C		Temperature measured at PA Case
Storage Temperature	-40°C	+85°C		
Thermal Protection				Cut out operates at 90°C ±5°C
Open/short Survivability				10:1 VSWR at all phase angles

