

## LMR800 BAND OR CHANNEL SELECTIVE REPEATER for iDEN and Analog Networks

## MR801Bi POWER

MIKOM's **MR801Bi POWER** is available as a variable band selective or channel selective repeater for iDEN and Analog.

This repeater bi-directionally amplifies signals between multiple mobiles and a single base station in the AMPS800 frequency band. It is employed where poor topological conditions cause weak field strengths. It can provide highly selective amplification of band segments or channels in the AMPS800 band.

**MR801Bi POWER** modules can be combined with other repeater modules in order to create a multi-band repeater system. Modules operating in PCS1900, GSM1800, GSM900, or iDEN bands are available. When different modules are combined, a common antenna and control interface are available.

The **MR801Bi POWER** can be set-up locally or remotely. A PCMCIA slot for modem operation is an available option. The repeater has a large number of functions that can be monitored and changed by the operators via a terminal emulation program or the MIKOM OMC software platform. An easy to understand and simple to learn communication language is available to help the operator query status reports from the repeater or to change settings.

- **Efficient ultra high power amplifiers**
- **Interference cancellation equipment for antenna isolation improvement**
- **Remote control and operation & maintenance center**
- **Built in test equipment**
- **Easy and fast to install and upgrade**
- **RS232, PCMCIA or PSTN data interface**
- **Combinations of AMPS800, PCS1900, GSM900, GSM1800, TACS and ETACS are possible**
- **Band or channel selective**



# LMR800

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# MR801Bi

## POWER

### ELECTRICAL SPECIFICATIONS

Frequency	Uplink 806-824 MHz; Downlink 851-869 MHz
Gain	90 dB
Gain variation over frequency and temperature*	±2.5 dB (±3.5 dB at extreme temperatures)
Gain adjust range	30 dB in 2 dB steps
Gain adjust range tolerance	±0.5 dB
Return loss	15 dB @ 25°C ambient temperature
Spurious/intermodulation	-13 dBm max
Power supply	100-130 VAC / 40-60 Hz Option: 15-24 VDC or 36-72 VDC Option: 220-250 VAC / 40-60 Hz
RF connector	7/16 female; Option: N female
Environmental and safety	See separate leaflet

\*Normal temperature range +5° to +40°C; Extreme temperature range -33° to +50°C

### BAND AND CHANNEL SPECIFICATIONS

	Variable Bandwidth	Channel Selective
Bandwidth	0.1*-15.0 MHz	25 kHz
Slope 3 dB to 30 dB	2 MHz	-
30 dB bandwidth	-	$f_c \pm 60$ kHz
50 dB bandwidth	-	$f_c \pm 120$ kHz
Delay	6 µs	20 µs typ.
Delay variation (typical)	±150 ns	±500 ns typ.
Far off selectivity	40 dB	50 dB
NF at Gmax	8 dB	6 dB
NF at Gmax -30 dB	13 dB	12 dB
OICP-3 at Gmax	48 dBm	48 dBm
OICP-3 at Gmax -10 dB	48 dBm	48 dBm
OICP-3 at Gmax -20 dB	47 dBm	47 dBm
OICP-3 at Gmax -30 dB	45 dBm	45 dBm
Output noise in band at Gmax	-81 dBm/Hz	-
Output noise out of band at Gmax	-101 dBm/Hz	-
Pwr consumption stdby/max pwr: 1 module	155/220 W typ.	150/210 W typ.
4 modules	200/265 W typ.	175/240 W typ.

\* 1.5 dB gain degradation at 100 kHz

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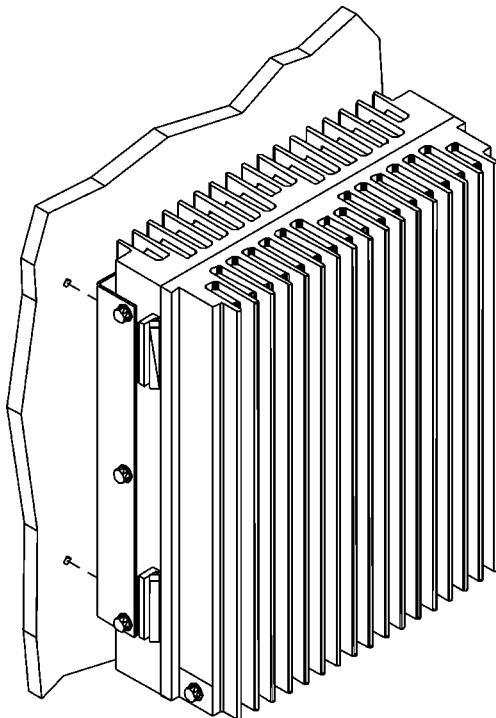
**MR801Bi**  
**POWER**

**AVAILABLE POWER PER TECHNOLOGY**

	iDEN	Analog
<b>Pout at 1 channel</b>	37.0 dBm	40.0 dBm
<b>Pout/channel at 2 channels</b>	31.0 dBm	37.0 dBm
<b>Pout/channel at 4 channels</b>	28.0 dBm	33.0 dBm
<b>Pout/channel at 8 channels</b>	25.0 dBm	29.0 dBm
<b>ALC threshold</b>	Adjustable	

**MECHANICAL SPECIFICATIONS**

<b>Height, width, depth</b>	21.1 x 18.2 x 7.9 inches 535 x 462.5 x 200 mm
<b>Volume</b>	>46 liters
<b>Weight (approx.)</b>	103 lbs (47 kg)

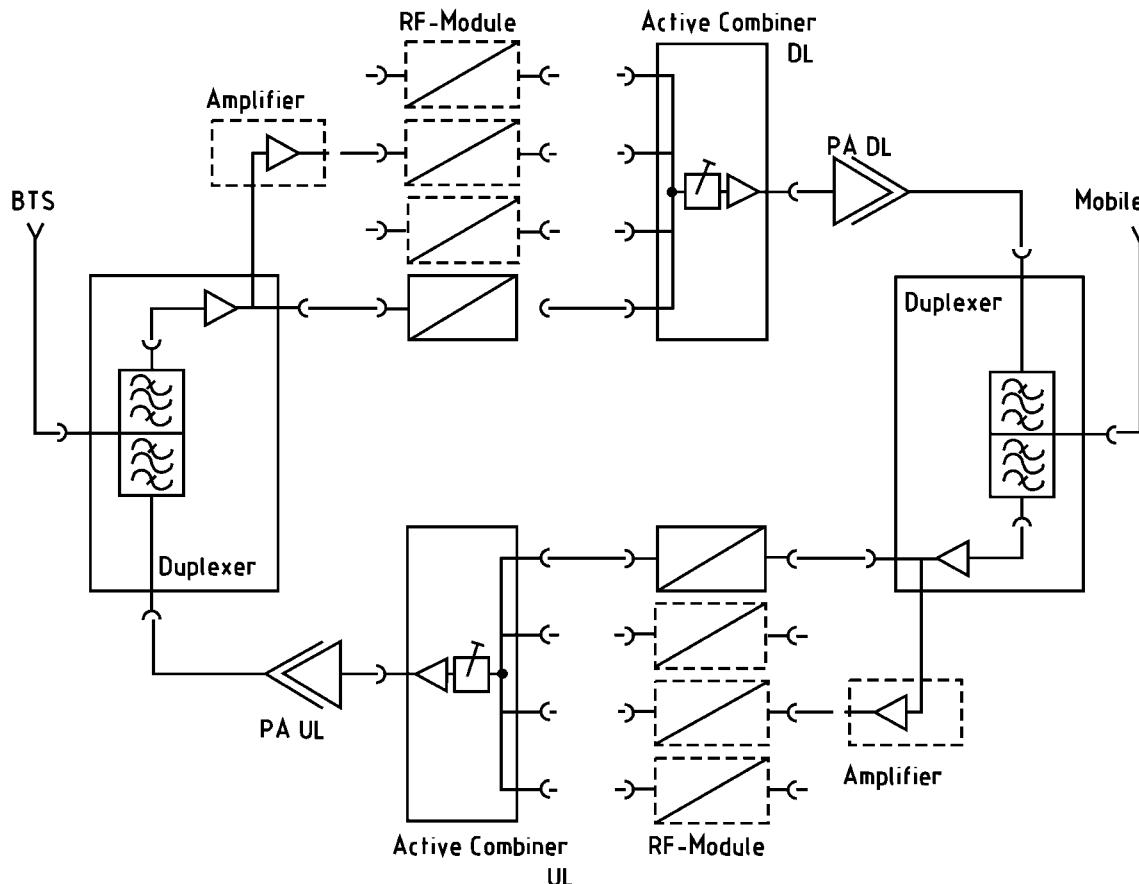


All data is subject to change without notice

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**DESIGN PRINCIPLE**



**OPTIONS**

<b>VSWR module</b>	Measurement of VSWR of downlink output antenna port. Alarm threshold at 10 dB return loss.
<b>Battery backup, UPS</b>	Backup time 20 min to 2 hours.
<b>RF power booster</b>	Downlink power capability of 50 watts or 100 watts peak. Low noise uplink preamplifier.
<b>Mounting</b>	Pole mounting kit and free standing option.

This preliminary data is for information purposes only and should not be construed as an offer for sale of the equipment described pending F.C.C. type acceptance.