

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**



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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 4 modules	155/220 W typ. 200/265 W typ.	150/210 W typ. 175/240 W typ.

* 1.5 dB gain degradation at 100 kHz

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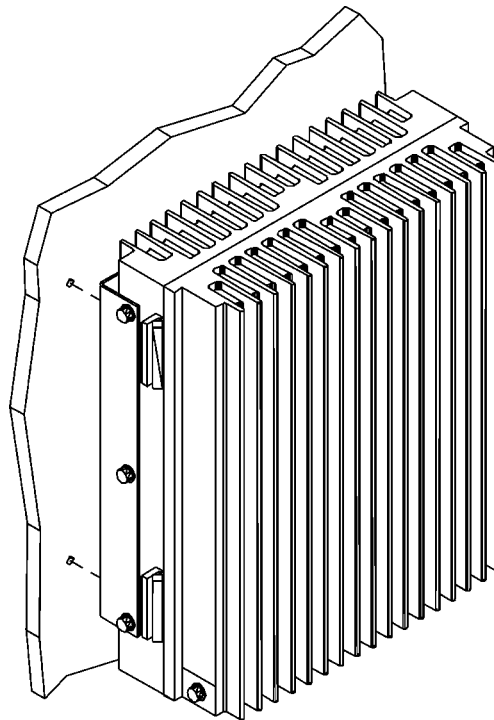
MR801Bi
P O W E R

AVAILABLE POWER PER TECHNOLOGY

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

MECHANICAL SPECIFICATIONS

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



All data is subject to change without notice

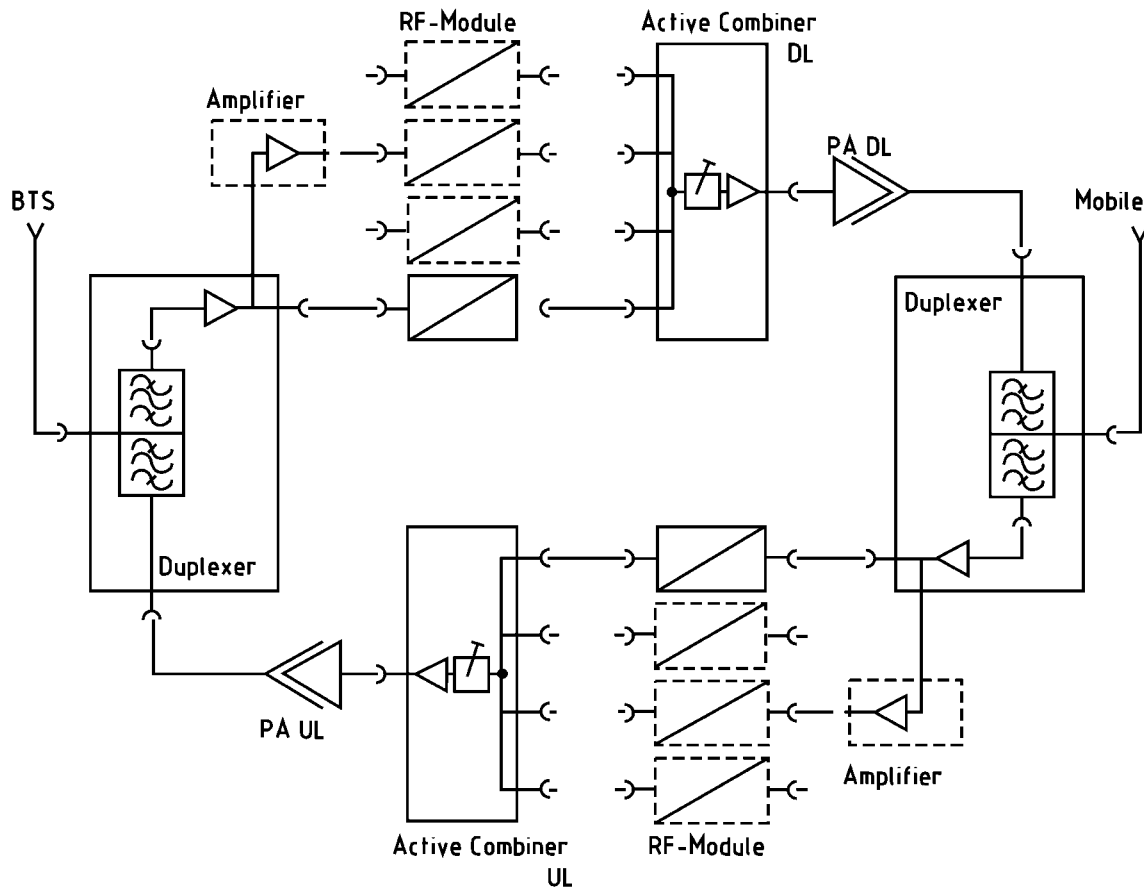
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DESIGN PRINCIPLE



OPTIONS

VSWR module	Measurement of VSWR of downlink output antenna port. Alarm threshold at 10 dB return loss.
Battery backup, UPS	Backup time 20 min to 2 hours.
RF power booster	Downlink power capability of 50 watts or 100 watts peak. Low noise uplink preamplifier.
Mounting	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.