

LMR800 **CHANNEL SELECTIVE REPEATER** **for iDEN and Analog Networks**

MR801iB

MIKOM's MR801iB is available as a channel selective repeater for iDEN and analog.

This repeater bi-directionally amplifies signals between multiple mobiles and a single base station in the LMR800 frequency band. It is employed where poor topological conditions cause weak field strengths. It can provide highly selective amplification of channels in the LMR800 band.

MR801iB modules can be combined with other repeater modules in order to create a multi-band repeater system. Modules operating in AMPS800, PCS1900, GSM1800, or GSM900 bands are available. When different modules are combined a common antenna and control interface are available.

The MR801iB 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 and maintenance center**
- **Extremely small size and weight, less than 30 lbs (14 kg)**
- **Built in test equipment**
- **Easy and fast to install and upgrade**
- **RS232, PCMCIA or PSTN data interface**
- **Combinations of PCS1900, GSM1800, GSM900, TACS, ETACS, AMPS800, and iDEN are possible**



LMR800

CHANNEL SELECTIVE REPEATER

for iDEN and Analog Networks

MR801iB

ELECTRICAL SPECIFICATIONS

Frequency	Uplink 806-821 MHz; Downlink 851-866 MHz
Gain	85 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 for non European systems -36/-30 dBm for European Systems
Power supply	100-130 VAC / 40-60 Hz Option: 15-24 VDC or 36-72 VDC Option: 220-250 VAC / 40-60 Hz
RF connectors	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

3 dB bandwidth	25 kHz
30 dB bandwidth	$f_c \pm 60$ kHz
50 dB bandwidth	$f_c \pm 120$ kHz
Delay	20 μ s
Delay variation (typical)	±500 ns
Far off selectivity	55 dB
NF at Gmax	5 dB
NF at Gmax -30 dB	8 dB
OICP-3 at Gmax	48 dBm
OICP-3 at Gmax -10 dB	48 dBm
OICP-3 at Gmax -20 dB	48 dBm
OICP-3 at Gmax -30 dB	47.5 dBm
Pwr consumption stdby/max pwr: 1 module 4 modules	110/110 W typ. 140/140 W typ.

LMR800

CHANNEL SELECTIVE REPEATER

for iDEN and Analog Networks

MR801iB

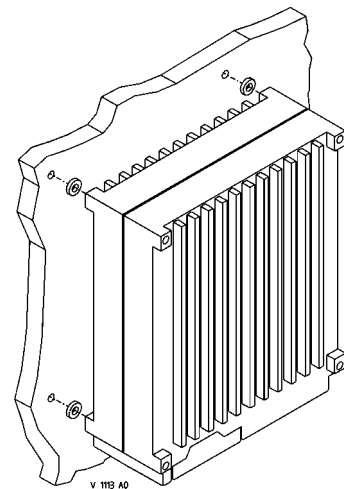
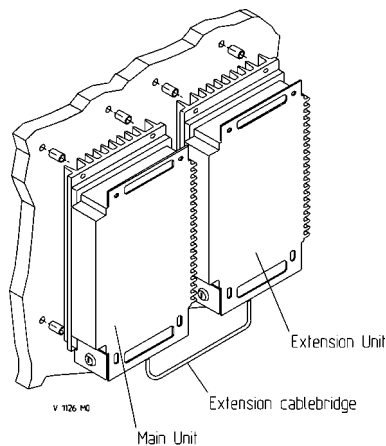
AVAILABLE POWER

Pout at 1 channel	36.0 dBm
Pout/channel at 2 channels	31.0 dBm
Pout/channel at 4 channels	26.5 dBm
Pout/channel at 8 channels	23.0 dBm
ALC threshold	adjustable

MECHANICAL SPECIFICATIONS

The MR801iB is available in two different cabinets (see table below). The standard cabinet is able to hold a 2 channel system and is upgradeable to an 8 channel system through an external cablebridge between the 2 channel cabinets. A combination of AMPS800 with other bands such as PCS1900 or GSM900 is possible. An 8 channel cabinet is also available.

	2 ch cabinet (standard)	8 ch cabinet (large)
Channel selective	✓	✓
Band select	✓	✓
Height, width, depth	16.7 x 10.0 x 4.3 inches 425 x 255 x 110 mm	21.1 x 18.2 x 7.9 inches 535 x 462.5 x 200 mm
Volume	<12 liters	45 liters
Weight (approx.)	30 lbs (14 kg) per unit	103 lbs (47 kg)



All data is subject to change without notice.

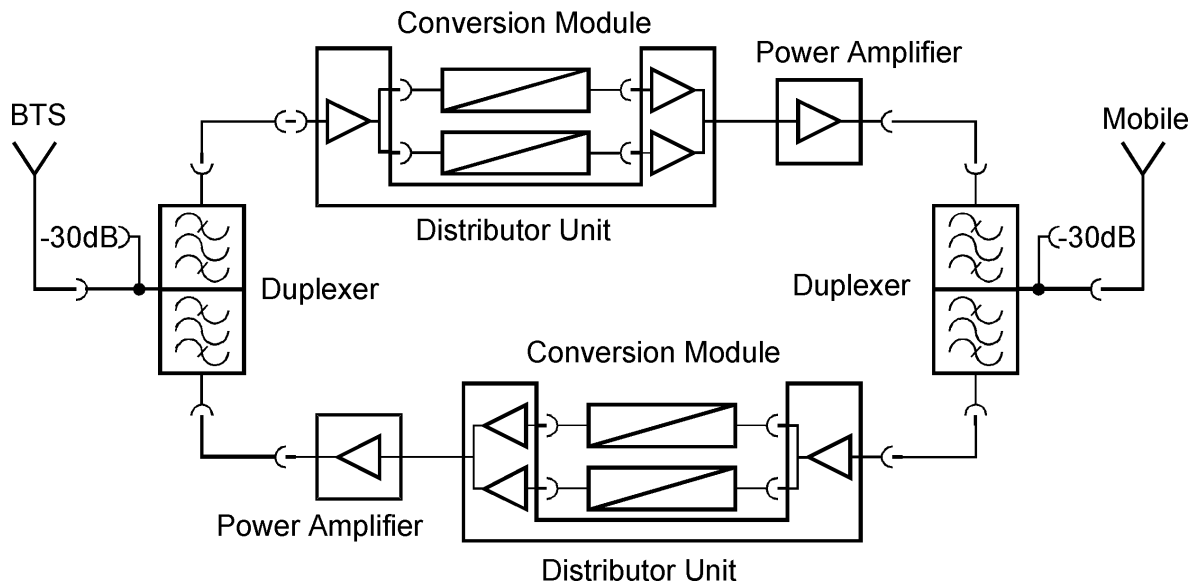
LMR800

CHANNEL SELECTIVE REPEATER

for iDEN and Analog Networks

MR801iB

DESIGN PRINCIPLE



OPTIONS

VSWR module	Measurement of VSWR of downlink output antenna port. Alarm threshold at 10 dB return loss.
Interference Cancellation Equipment (I.C.E.)	Electronic improvement of antenna isolation. Available for iDEN. channel option.
Battery backup, UPS	Backup time 20 min to 2 hours.
RF power booster	Downlink power capability of 50 watts composite. 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.