

# Over-the-Air 800 Network Repeater™

*Expand Your Cellular Network at a Fraction of the Cost of Base Stations!*

## IMMEDIATE BENEFITS

- ⇒ Lower cost than base stations—Save up to 45%!
- ⇒ Ensures competitive coverage
- ⇒ Up to 90% less real estate required
- ⇒ Faster time-to-market
- ⇒ Excellent return on investment
- ⇒ Operational transparency with AMPS, NAMPS, TDMA (IS-136), or CDPD

## FEATURES

- ⇒ IS-136 TDMA Compliant
- ⇒ High output power
- ⇒ "Fits-on-a-pole" cabinet; small, unobtrusive, aesthetically acceptable
- ⇒ Weathertight enclosure; can be mounted outdoors
- ⇒ Simple maintenance concept; field replaceable unit—gets you back on the air fast
- ⇒ Back-up power option
- ⇒ RepeaterNet™—User-friendly supervisory control and alarm network for OA&M
  - Windows® 95 (Craft)
  - Windows® NT (NMS)
  - Graphical User Interface
  - Regional Control for up to 128 Network Repeaters
  - Network Master for up to 128 Regional Controllers



*The Repeater Technologies OA800 NR*

### **WHY USE NETWORK REPEATERS...?**

- When you don't have unlimited investment capital.
- When you need to get coverage quickly to be more competitive.
- When you are not expecting explosive subscriber growth.
- When you need fast time-to-market to satisfy license/investor requirements.
- When you desire a smaller real estate burden.
- When you want to save on electric bills.
- When you want smaller switch or base station controller costs...

*relative to base stations or microcells.*

# OA800 NR—Technical Specifications

MODELS AND FREQUENCY RANGE (MHz)					
MODEL	SYSTEM	BW	BAND	FORWARD	REVERSE
OA800S NR	AMPS/NAMPS/ TDMA/CDPD	10.0 MHz	A	870.0 – 880.0	825.0 – 835.0
			B	880.0 – 890.0	835.0 – 845.0
OA800SE	AMPS/NAMPS/ TDMA/CDPD	12.5 MHz	A+A"	869.0 – 880.0	824.0 – 835.0
			A'	890.0 – 891.5	845.0 – 846.5
			B	880.0 – 890.0	835.0 – 845.0
			B'	891.5 – 894.0	846.5 – 849.0

RF CHARACTERISTICS				
FORWARD RF OUTPUT POWER PER CARRIER AT THE ANTENNA PORT				GAIN (dB) ADJUSTABLE IN 2 dB STEPS
2-Channel	4-Channel	8-Channel	16-Channel	
+33 dBm	+30 dBm	+27 dBm	+24 dBm	55 – 85

MECHANICAL / ELECTRICAL CHARACTERISTICS					
POWER CONSUMPTION	INPUT VOLTAGE OPTIONS	SIZE	WEIGHT	TEMPERATURE	ANTENNA CONNECTORS
<275 Watts	90–255 VAC, 50–60 Hz or 24/48 VDC ±10%	16 H x 14 W x 11 D (inches) 406 H x 356 W x 280 D (Mm)	45 lbs. or 20 Kg	-30° to +50° C	Type N (f) 7/16 DIN (f) optional

ADDITIONAL CHARACTERISTICS					
DELAY	NOISE FIGURE	MAXIMUM INPUT SIGNAL	SPURIOUS RESPONSE	IMAGE REJECTION (OUT OF BAND)	VSWR
6 µsec	7 dB maximum @ 85 dB gain	+10 dBm (without damage)	per IS 136, FCC	>90 dB	<1.5:1

REPEATERNET ALARM, MONITORING, AND CONTROL		
ACCESS OPTIONS	GUI	FUNCTIONS
<ul style="list-style-type: none"> <li>RS-232 (local)</li> <li>POTS (dial-up)</li> <li>Wireless Modem</li> </ul>	<ul style="list-style-type: none"> <li>Windows® 95 (Craft)</li> <li>Windows® NT (Master)</li> <li>32-bit</li> <li>Point and click</li> <li>Pull-down menus</li> </ul>	<ul style="list-style-type: none"> <li>Summary Alarm</li> <li>Interrupt Reporting</li> <li>Definable Threshold</li> <li>Remote Control: Gain, Channel, and PA On/Off</li> </ul>

ALTERNATE POWER OPTIONS	
TYPE	DESCRIPTION
BUPS	2-8 hours of backup power without AC
Solar Power	PV (Photovoltaic) with regulated charging to batteries
Hybrid Solar and TEG	PV with thermal electric propane generation assistance
Hybrid Solar and MG	PV with propane or diesel generation assistance

INPUTS AND OUTPUTS			
LOCAL I/O	OUTPUT TYPE	LOCAL I/O	OUTPUT TYPE
Major Alarm	Form C Relay	Remote Control Relays (2)	Form C Relay
Digital Outputs (2)	Opto-Isolated TTL	External Battery Monitor	Analog (DC Volts)
Digital Inputs (2)	Opto-Isolated TTL		

LED INDICATORS
System Ready
Critical Alarm

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Repeater Technologies may change specifications as necessary to meet industry requirements.