MOBILPAC II
INTEGRATED MOBILE RADIO MODEM
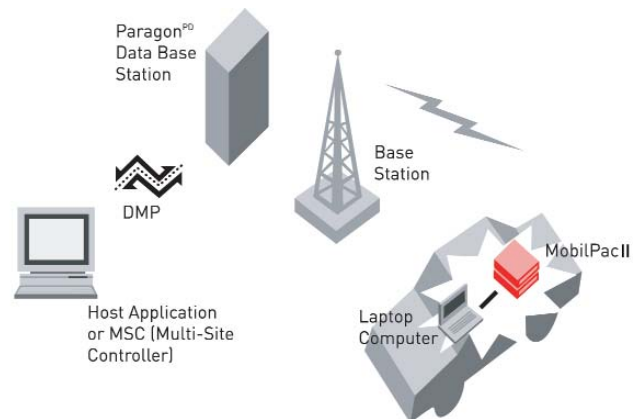
VHF, UHF, 800 MHz

The Dataradio MobilPac II is a rugged, factory integrated, vehicular radio modem product designed to provide optimum data transmission performance for demanding mobile data applications. MobilPac II incorporates state-of-the-art Dataradio technology in a cost-effective, easy-to-install package. MobilPac II uses advanced DSP (digital signal processing) for high performance 19.2 Kbps and 14.4 Kbps operation.

FEATURES

- 25 KHz channels
  19.2 Kbps, 9.6 Kbps
- 12.5 KHz channels
  14.4 Kbps, 9.6 Kbps
- Supports end-to-end smart IP network connectivity
- Factory integrated slimline radio and modem package for easy installation
- Delivered factory tuned and programmed based on your system design requirements
- Flash EPROM-based for easy upgrade of modem and controller firmware without disassembly
- Automatic channel changing for multi-channel systems up to 8 channels
- Fast attack radio designed for high speed data and minimum overhead
- Supports high efficiency DBA protocol
- 2 year limited factory warranty
- Sophisticated DSP-based modem provides added system performance, fewer retries and more effective throughput

SYSTEM DIAGRAM

Paragon^{PD} Data Base Station

DMP

Base Station

MobilPac II

Host Application or MSC (Multi-Site Controller)

Laptop Computer

MOBILPAC II SPECIFICATIONS

MobilPac II reflects the optimum interface between radios, radio modems and mobile data networks for achieving extraordinary radio infrastructure throughput and flexibility. Problems associated with radio interfaces, production variations, and voice radio limitations have been eliminated while still meeting FCC and Industry Canada regulations.

GENERAL

Frequency Range (MHz)	138-174	400 - 470, 450 - 520	RX 851-870, TX 806-870
Size	7.7'' W x 3.125'' H x 6.4'' D+ 2.0'' connection clearance for power, RF, and data cables		
Number of Channels	8		
Reverse Polarity Protection	Internal Crowbar Diode		
Rx Operating Voltage/ Current Consumption	10.8-16V DC		
Tx Current Consumption	6.2 A	7 A	6.2 A
Antenna Impedance/Connector	50 Ohms, Mini-UHF Connector		
Operating Temperature Range	-22°F to 140°F / -30°C to +60°C		

RECEIVER

Measurement Method	RSS-119 (IC Approval) EIA (FCC Approval)		
Type	Triple Conversion Superheterodyne		
Intermediate Frequencies	27.7 MHz, 10.7 MHz, 455KHz	49.1 MHz, 10.7 MHz, 455 MHz	61.9 MHz, 10.7 MHz, 455 KHz
Selectivity	75 dB		
Spurious Response	80 dB		
Intermodulation	75 dB		
TX-RX Channel Spacing	1-38 MHz, 1-50 MHz	1-70 MHz	45 MHz
Frequency Stability	+/2.5 ppm	+/- 2.5 ppm	+/- 1.5 ppm

TRANSMITTER

Measurement Method	RSS-119 and ETS 300-086		
Power Output	5-25		5-15 W
Spurious Emissions	- 80 dBc		
Hum and Noise	-45 dB @ 25 KHz, -39 dB @ 12.5 KHz		
Frequency Stability	+/- 2.5 ppm	+/-2.5 ppm	+/- 1.5ppm

MODEM/NETWORK

Forward Error Correction	Reed Solomon
Soft Sync	Finds sync even through fades
RX Sensitivity for 1% PER (Packet Error Rate)	< -110 dBm@19.2 Kbps
Addressability	32 bit field
Privacy	128-bit user-assignable key
User Data I/O	EIA RS-232 DCE, 300-9600 bps, DMP (Dataradio Multiplex Protocol)