

The Panther™ 4 CHANNEL RECEIVER



FINCH CDMA RECEIVER MODULE

The Panther™ is a high performance, modular receiver system providing precision, four channel signal strength measurements using four independent receivers. Panther provides a high speed, unfiltered data output, including time, GPS, marker frequency of measurement followed by 512 measurements per channel.

NEW!

Finch™

With the Finch™ CDMA

module, Panther becomes a powerful 4-channel receiver system able to measure and report both analog and digitally modulated signals simultaneously.

Finch measures all 512 base stations and measures true CDMA (Ec/Io) correlated signal strength ± 1.0 dB in less than one second.



Optional Finch™ CDMA module shown

FEATURES:

- **Now** supports simultaneous **CDMA** and Analog receiver modules for verification of neighbor lists, PN assignments, handoff thresholds, pilot pollution and analysis of coverage areas
- Modular construction allows any combination of analog & digital receiver pairs, i.e. Cellular, PCS, Paging, SMR/iDEN and LMR, in any combination of forward and/or reverse bands with up to four receivers
- High speed scanning ability supports **40 Lambda Data Averaging**
- Precise navigation using an internal 8-channel Global Positioning System (GPS)
- Super bright display using 240 x 128 pixel graphic supertwist LCD (VF backlighted)
- 12 volt DC operation via supplied transformer or vehicle power
- Total system weight under 17 lbs., encased in a durable water resistant case
- Internal speaker and headset audio output
- Measurements exceed sampling rate requirements for 40 λ at vehicle speeds >80 MPH
- High speed interface to PC via 38,400 bps serial port

The Panther with Finch CDMA module is just one of many exceptional design solutions from Berkeley Varitronics. Call us today for more information: (732) 548-3737 / Fax: (732) 548-3404 Internet: www.bvsystems.com E-mail: info@bvsystems.com



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SPECIFICATIONS

FINCH MODULE RF PERFORMANCE:

IF BANDWIDTH	1.25 MHz
MEASUREMENT ACCURACY	Ec/Io ± 1 dB@ 25C deg ± 2 dB@ 0-50C deg
RECEIVER NOISE FIGURE	< 7.5 dB
ANTENNA INPUT SENSITIVITY	> -90 dBm
MAXIMUM SAFE INPUT	+ 10 dBm

FINCH MODULE CDMA PROCESSING:

PN GENERATOR SEQUENCES	IS-95 I and Q Pilot
MINIMUM Ec/Io	-20 dB
CORRELATION LENGTH	1024 chips (for both I and Q)
MINIMUM PILOT POWER DETECTABLE	-20 dB
BASE STATIONS SCAN RATE	< 1 sec.
DISPLAY UPDATE RATE	< 1 sec.
BASE STATION IDENTIFICATION	Direct IS-95 BS ID demodulation
TIMING ACCURACY	Absolute (derived from the signal)
TIMING JITTER	± 200 ns

PANTHER QUAD RECEIVER SYSTEM:

DISPLAY	128x240 pixel Graphic Backlighted VF LCD (Super Twist)
TUNING RANGE	20-40 MHz synthesized tuning covering any band
BANDS SUPPORTED	ISM: 2.400-2.485 GHz ISM: 900-930 MHz LMR: 805-825, 850-870 MHz SMR / iDEN: 851.0125-870 MHz Paging: 145-165, 450-465, 928-941 MHz tunable in either 12.5 kHz or 25 kHz steps *PCS: 1850-1910, 1930-1995 MHz (A,B and C Blocks) *Cellular: 824-848, 868-896 MHz tunable in 30 kHz steps
CDMA and Analog:	
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ANALOG RSSI MEASUREMENTS	
Fast Scan: (For Each Receiver):	512 measurement/second
Scan Mode(10 bit precision A/D convertor):	up to 80 Freq/Rec

GENERAL SPECIFICATIONS

(For each Receiver Module)

Dual Conversion:	83 MHz first IF, 455 kHz second IF
IF Bandwidth:	4 kHz, 10 kHz, 25 kHz or 30 kHz available (@ 5dB)
Stability:	± 2.5 PPM from freezing to 120 degrees F
Phase Noise:	> 80 DBC @ 1 kHz
Antenna:	TNC 50 ohms
Controls:	20 button keypad
Warm Up Time:	< 3 minutes
Power:	External car cigarette lighter 12-16 VDC @ 200 mA External DC transformer 16V @500 mA, 120 or 240 VAC auto switching
Serial Port:	RS-232, 38,400 baud, 8 bit. no parity, 1 stop bit
Weight:	17 lbs.
Dimensions:	7" H x 13" W x 16" L
Approvals:	UL, CSA external supply

All Panthers include internal 8-channel differential GPS with antenna, cigarette car adapter for mobile power and Windows 95 compatible software. Ask for optional IF Bandwidths and BER Demodulation.