



SeeGull® EX+ | Scanning Receiver



TD-LTE / FD-LTE /
WCDMA / GSM /
CDMA / EV-DO /
WiMAX

One World, One Scanner

CHALLENGE:

As networks have evolved from 2G to 3G to 4G, PCTEL's SeeGull EX scanning receiver has provided reliable, high performance drive and walk test measurements. However, the days of all cellular networks operating on a single technology are behind us. Instead of replacing 2G and 3G networks, operators are overlaying them with next-generation 4G LTE. LTE itself comes in two versions TD-LTE and FD-LTE, which may be deployed in the same region, further increasing the complexity of the radio access network (RAN). To make the most efficient use of all their network technologies, operators need an EX that can provide more technologies and bands in a single tool at a reasonable cost.

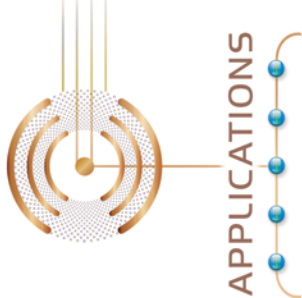
SOLUTION: The SeeGull EX+ Scanning Receiver

PCTEL's SeeGull EX+, the latest evolution of the EX platform, has the flexibility operators need to adapt to increasing network complexity. It supports up to 6 bands and multiple technologies in a single scanner, including configurations with both TD-LTE and FD-LTE. Featuring advanced PCTEL scanning capabilities, such as FD-LTE MIMO and GSM/WCDMA Layer 3, the EX+ makes it easy for operators to get the data they need for smoother network evolution and a better user experience.

FEATURES

- One scanner, one drive test for 6 bands and multiple technologies
- Supports any technology available on the SeeGull EX platform
- Concurrent scanning of 2 technologies for superior data density
- Top N Measurements with High Dynamic Range
- Frequency-selective LTE resource block and subband measurements
- Exclusive PCTEL FD-LTE MIMO Parameters
- Low power consumption

SeeGull® EX+ | Scanning Receiver



- Plan, baseline, and optimize the Network
- Verify and troubleshoot coverage
- Identify antenna connection problems with path measurements
- Test FD-LTE MIMO multipath conditions and throughput
- Benchmark networks from multiple operators

SeeGull EX+ Specifications

The SeeGull EX+ supports most operating bands currently deployed around the world. PCTEL's complete list of supported bands frequently expands. For the latest product details, please contact your sales representative or email RFS.Sales@pctel.com.

Technologies	Bandwidths	Protocol Measurements	Power Measurements
TD-LTE	Up to 20 MHz*	P-SCH/S-SCH RP and RQ, RSRP, RSRQ, CINR, Time Offset, Delay Spread, UL/DL Configuration #	RSSI, Spectrum Analysis, Enhanced Power Scan, LTE Power Analysis
FD-LTE	Up to 20 MHz*	P-SCH/S-SCH RP and RQ, RSRP, RSRQ, CINR, Time Offset, Delay Spread	RSSI, Spectrum Analysis, Enhanced Power Scan
WCDMA/HSPA+	200 kHz/3.84 MHz	CPICH Ec/Io, Aggregate Ec/Io, PSCH Ec/Io, SSCH Ec/Io, Io, SIR, Rake Finger Diversity, Time Offset, Multipath Delay Spread	RSSI, Spectrum Analysis
GSM	30 kHz / 200 kHz	BSIC, C/I	RSSI
CDMA/EV-DO	30 kHz / 1.25 kHz	Ec, Io, Ec/Io, Aggregate Ec/Io, Pilot Delay, Delay Spread	RSSI, Spectrum Analysis, Enhanced Power Scan
WiMAX	250 kHz / 5 MHz / 10 MHz	CINR, Io, Neighbor Cell Delay, Delay Spread	RSSI, Spectrum Analysis

* Measures the center 10 MHz of a 20 MHz channel for FD-LTE MIMO and TD-LTE.

Technologies	Measurements Modes	Per-technology Measurement Rates	Dynamic Range	Min. Detection Level
TD-LTE	Top N Sync Channel, Reference Signal, RB (wideband/subband)	25/sec (@ 5 MHz)	-20 to +40 dB (RS-CINR)	-140 dBm (RSRP @ 10 MHz)
FD-LTE		50/sec (@ 5 MHz)	-20 to +40 dB (RS-CINR)	-140 dBm (RSRP @ 10 MHz)
WCDMA/HSPA+	Top N P-SCH/S-SCH SC, Top N BCH Decoding	100/sec (High Speed Mode)	-26 dB (Ec/Io)	-120 dBm (High Dynamic Range Mode)
GSM	BSIC/PCCH Decoding	20/sec	+2 dB (C/I)	-110 dBm
CDMA	Top N PN	25/sec	-28 dB (Ec/Io)	-130 dBm (PN)
EV-DO	Top N PN	18/sec	-18.5 dB (Ec/Io)	-120 dBm (PN)
WiMAX	Top N Preamble	200/sec	-35 to +35 dB @ 5/10 MHz	-105 dBm

Power	Size	Weight	Temperature Range	Input/Output
+8 to +16 VDC 30W max	10.0" L x 3.8" W x 4.9" H 254mm L x 97mm W x 124mm H	4.3 lb (2.0 kg)	Operating: 0°C to 50°C Storage: -40°C to 85°C	(3x) RF Input SMA Female (50Ω) (1x) GPS Input SMB Male (50Ω) (1x) Data USB 2.0, High Speed (1x) Power Custom 2.5mm Plug



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PCTEL RF Solutions products are protected under the following U.S. patents:
7,272,126; 7,236,746; 7,050,755; 7,013,113; 6,950,665; 6,931,235; 6,917,609; 6,816,709; 6,609,001; 5,819,177; 6,091,715; 7,639,985; 7,019,691; 7,301,920.

QMS Certified ISO 9001:2008
Specifications subject to change without notice.
10MRK2-09 RevA March 2012

