



**Four-Port
Continuous Wave
400 MHz to 2.7 GHz**

SeeGull® CW Transmitter

Preliminary In-Building Network Testing

CHALLENGE:

Deployments of in-building networks with complex propagation environments, multiple technologies and bands, and interference potential create unique challenges for operators. Without proper tools for continuous wave (CW) testing, it is difficult to identify accurate propagation characteristics or collect empirical data to validate preliminary network design. Lack of accurate data from CW testing can lead to poorly positioned antennas. Antennas with improper location or tilt often result in excessive overlap in coverage and undesirable soft hand-off conditions. This can significantly reduce throughput and Quality of Service and adversely impact customer experience. Effective deployments of large Distributed Antenna Systems (DAS) rely on CW transmitters – and deploying quickly with efficient testing requires a transmitter capable of emanating multiple bands over multiple technologies at the same time.

SOLUTION:

The SeeGull CW Transmitter supports the design, verification, and optimization of in-building networks. It emits up to four simultaneous continuous wave signals with a frequency range of 400 MHz to 2.7 GHz. This replicates a live network environment for RF propagation testing. The data can be collected through a PCTEL scanning receiver and processed using SeeHawk® or third party post processing tools. Results are used to validate or modify design with optimal antenna locations and coverage capability for each segment of an in-building cellular network. Efficient and portable test tools help mobile operators reduce deployment costs and new services time to market. This maximizes customer satisfaction and long-term network revenue potential.

BENEFITS

- Reduce testing time and the amount of equipment needed with four-port transmitting
- Adapt to a wide range of in-building network scenarios with a frequency range from 400 MHz to 2.7 GHz
- Customize transmission parameters quickly and save configurations for future sessions with an intuitive menu interface
- Set up transmissions for in-building venues quickly and easily with a portable, lightweight unit
- Achieve precise results with accurate network replication
- Integrate with PCTEL's In-Building Testing Suite (IBTS™)

SeeGull® CW Transmitter | Specifications

RF Characteristics	
Active RF Ports	2 or 4 Ports
Frequency Accuracy	1.1 ppm
Frequency Range	Customized Bands from 400 MHz to 2.7 GHz
Frequency Step	100 KHz
Modulation	Continuous Wave
Min. Output Power	-10 dBm
Max. Output Power	15 dBm: 400 MHz – 1900 MHz 12 dBm: 1900.1 MHz – 2170 MHz 10 dBm: 2170.1 MHz – 2700 MHz
Power Accuracy	+/- 1 dB
Off Transmit Power	-100 dBm
Non-Harmonic Spurious	-40 dBc
RF Output	50 ohm SMA Female
Power Supply	
Input Power	9 to 14 VDC
Charger	110/220V AC, 50/60 Hz 12V Car Charger
Battery Operating Time (continuous maximum output power)	105 minutes
Battery Standby Time	450 minutes
Physical Characteristics	
External Dimensions*	7.5" L x 3.1" W x 1.7" H [191 mm L x 79 mm W x 43 mm H]
Weight	1.5 lb [0.7 kg] With Battery
Temperature Range	-10°C to +40°C
Standard Package	Transmitter (internal battery), Charger, and Manual
Safety (CE)	EN 61010-1:2010
EMC	EN 55011:2009+A1:2010
RoHS	Compliant (6/6)

* Approximate size of CW Transmitter profile (L) and footprint (R). See specifications above for exact dimensions.

QMS Certified ISO 9001:2008

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Specifications subject to change without notice.



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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; 8,422,461; 7,639,985; 7,019,691.