WD-3300 High Performance Portable Direction Finding System

- Compact stand-alone system
- Single or dual receiver versions
- Wide frequency range, extendable to 3.5 GHz
- Proven and reliable pseudo-Doppler method
- Mobile or stationary deployment
- Quick system set-up without tools
- Rugged and weather-proof construction
- Superior accuracy
- Real-time RF/Audio spectrum analyzer
- Mains power and battery operation
- Single or dual receiver configuration
- Integrated compass compensation
- Optional GPS logging
- Optional Client/Server control
- Optional triangulation and mapping

The WiNRADiO WD-3300 Direction Finding system employs the proven pseudo-Doppler and Wattson-Watt methods, combined with statistical signal processing, to deliver a cost-effective, yet highly accurate DF solution for government, military, law enforcement and industrial applications.

The entire DF system comprises of fully integrated receivers, battery, charging unit and control circuitry in a compact sturdy carry case, ready for quick and easy deployment anywhere, with or without external power sources.

The fully weather-proof antenna system comes with a sturdy tripod and employs 8-pole arrays for HF/VHF and UHF frequency bands for maximum accuracy.

The main user interface of the DF system is designed around a virtual receiver control panel, making it possible to operate the system just like a conventional communications receiver.

For maximum operator convenience, the bearings are indicated in numerical format, both as instantaneous and averaged values.

The circular azimuth display, with a freely adjustable North reference, has an additional “polar mode”. This allows the user to assess the signal strength relative to the trace length. An adjustable trace decay time can assist with recognising random reflections.

The waterfall and histogram graphics give an instant overview of the signal

bearing distribution over time, assisting in validating the quality of the signal azimuth indicators.

The WD-3300 unit is housed in a sturdy high-impact transport case containing one or two receivers with associated antenna interface circutry, power management system and a tablet. The built-in power management system allows operation from three sources: mains, vehicle battery or built-in rechargeable battery. The entire system is light-weight and easy to carry.

The system can be specified with a single or dual receiver configuration. In a dual receiver setup it is possible to monitor the demodulated audio signal of the received frequency, without any interference, which is inherent to the pseudo-Doppler technique.

There is also a GPS option available, which permits the logging of the measured azimuth values in relation to their GPS coordinates.

A software Client/Server Option is also available for remote control and data streaming. Using this option it is possible to control the DF system remotely via Ethernet interface.

Another software option, the Triangulation/Mapping Option, can be applied to determine an absolute position of a target by networking two or more WD-3300 systems.

Technical specifications	
Receiver frequency range	9 kHz to 1800 MHz, extendable to 3500 MHz
DF frequency range	Standard models: 100-1000 MHz (with WD-3300-AX310D antenna included) Optional frequency extensions: 2-100 MHz (using WD-3300-AX320D antenna) Optional frequency extensions: 1000-3500 MHz (using WD-3300-AX330D antenna)
Modulation type	AM, AMS, LSB, USB, DSB, ISB, CW, FM-N, FM-W
Dynamic range	90 dB
Sensitivity	-113 dBm (FM, 400 MHz, 12 dB SINAD)
DF Methods	Pseudo-Doppler (WD-3300-AX310D and WD-3300-AX330D antennas) Watson-Watt (WD-3300-AX320D antenna)
DF Accuracy	Typ. 2 degrees RMS (for WD-3300-AX310D antenna, in reflection-free environment)
Control unit dimensions	460 (W) x 330 (H) x 165 (D) mm 18.1" (W) x 13.0" (H) x 6.5"(D)
Control unit weight	12.8 kg (28.2 lb)
Antenna radome dimensions	Height: 355 mm (14.0") Diameter: 505 mm (19.9")
Tripod height	2.0 m (6.6 ft) max.
Total antenna and tripod weight	16.1 kg (35.5 lb)

Ordering Codes	Description
WD-3300RP-G315	Single-channel portable DF system (100-1000 MHz standard WD-3300-AX310D antenna included)
WD-3300RP-G315-2	Dual-channel portable DF system (100-1000 MHz standard WD-3300-AX310D antenna included)
WD-3300-AX320D	Optional HF/VHF antenna 2-100 MHz

WD-3300-AX330D	Optional UHF/SHF antenna 1000-3500 MHz
WD-3300-GPS	GPS option
WD-3300-CSO	Client/Server option
WD-3300-TMO	Triangulation/Mapping option

Specifications are subject to change without notice due to continuous product development and improvement.

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