

**IP65 DMR DIGITAL Portable Transceiver
with Personal Protection Features**

- **IP65 rated for water & dust protection**

Allows use in harsh environments, coupled with MILSTD 810F for robustness

- **Powerful 1 Watt Audio Output**

BTL Technology output, makes radio louder than most competitors and allows clear speech even in noisy environments

- **Voice Annunciation**

- Award winning Alarm Voice Alerting
- Channel Annunciation
- Battery Level Annunciation
- Programmable (optional) Bespoke Alarms

- **1700mAh Li-Ion battery pack**

High Power battery pack gives in excess of 15 hours use

- **VOX**

Allows Voice Activated/Hands Free Transmission, either Internal or external

- **Full Alarm Features:-**

- Man-Down
- Lone Worker
- Panic Button
- Programmable Alarm Buttons

- **Programmable Keys**

Dealer programmable keys for additional functions

- **Wideband**

UHF 400-470MHz

VHF 136-174MHz (special order)

- **“Mixed Channel” operation**

The DR5100 can automatically detect whether an incoming call is analogue or digital and switch accordingly.

The latest addition to the award winning “Lynx” series of radios, the palm sized DR5100 has been designed for the professional user, with a rugged and robust housing which meets MILSTD810F and IP65 for water and dust ingress & shock resilience.

The DR5100 is fully featured, punching way above its price tag. In reality no other DMR digital radios comes close in features or price.

Small, compact and fitting comfortably in the hand, not only is the DR5100 tough - its smart too, with inbuilt features for Personal Protection Equipment including Man-Down, Lone Worker and a Panic Alarm button - all programmable to allow ultimate flexibility and control.

Unique to all the higher tier RED “Lynx” products, the DR5100 has full voice annunciation, not just “Channel Annunciation”, with unique alarms spoken to the radios in the group. Only available with RED’s DR5100 is the option for bespoke voice alarms and prompts to be recorded and added into the system.

Thanks to BTL technology and a crisp Loudspeaker giving 1 Watt of audio output the DR5100 is much better to hear in noisy environments than its competitors. The radio has a standard “M1” fit audio accessory connector and there is full compatibility with the “Lynx” range of radios, sharing battery chargers and audio accessories.

Voice annunciation of Channel number allows simple operation and the battery status can be easily checked at the press of a button to give a voice annunciation of its state.



Award Winning Lynx series radios.

High Performance and features at highly competitive cost.

Key Features in more detail:-



MAN DOWN ALARM

The programmable Man Down Alarm operates when radio unit is tilted beyond around 45 degrees from vertical, starting a local "pre-alert" warning to the radio user, with an audible alert tone, followed by a full Alarm condition if the radio is not picked up back to its normal vertical position. The pre-timer allows the user some time if accidentally tilted, and can be programmed from 0 seconds up to 255 seconds, before the Man-down alarm is activated. Both the "Man-down" time and the "reminder" time can be programmed by your dealer for best working practice and environment.



LONE WORKER ALARM & PANIC BUTTON

The programmable Lone Worker Alarm operates when the radio user fails to press a button after a pre-programmed time period, from 1 minute to 255 minutes, starting a local warning to the radio user, with an audible alert tone, followed by a full Alarm condition if the radio is not activated by the user to indicate that they are OK.

The pre-timer allows the user some time once the "Lone Worker" time has expired to reset the timer by activating a key and can be programmed from 0 sec - 255 sec. before the Main alarm is activated. If the user fails to reset the Lone Worker then the Main Alarm will be activated.

The top mounted Panic button can also be programmed to send an alarm signal when pressed.

Both alarms can be set (by your dealer) to alert locally or send an alarm signal to other radios in the group for summoning assistance.



IP65 and MILSTD810F

All Lynx radios are built to meet IP65 for ingress of water and dust, as well as exceeding MILSTD 810F for shock, vibration, solar radiation, rain, humidity and salt fog. This level of robustness makes the radio suitable for harsh environments where standard IP54 rated radios will generally fail due to the lack of protection against dirt and fluid ingress. Internal seals and "O" rings protect the main circuit board, the "M1" (Motorola 2 pin) fitting audio accessory connector is sealed by a rubber cover and the ON/OFF switch has a protective guard to reduce damage if dropped.



Audio Quality

All Lynx radios have a powerful audio amplifier circuit, which gives a clear, crisp and powerful "punch" even in noisy environments.

The radio is rated at 1 Watt power with a water resistant mylar film speaker. The power rating is achieved by using "BTL" (balanced tuned load) technology which allows a much bigger signal to be sent to the speaker and outperforms its competitors easily. This "HiFi" approach to audio delivery allows a crisp signal without distortion to be appreciated by the user. A range of audio accessories are available to fit the universally standard "M1" plug fitting.

Specifications

General Specifications

Power Supply:-	7.5V DC +/- 20%
Frequency Ranges:-	VHF: 136-174MHz / UHF: 400-470MHz
Number of Channels:-	16 Channels/ 32 Channels in 2 Zones
Channel Spacing:-	12.5KHz /25KHz
Type of Emission:-	FM (11K0F3E)
	4FSK (DMR) 7K60FXD (Data) / 7K60FXE (Data & Voice)
Current drain:-	TX (high): <0.5A, RX (max audio): <330mA, Standby: <70mA
Antenna Impedance:-	50 Ohm SMA fixed antenna
Operating Temperature:-	-30°C - +60°C
Dimensions H x W x D (mm):-	96.5mm x 54mm x 33mm with standard Li-ion battery
Weight (g):-	<245g with KB50 battery and antenna
Average battery life (5/5/90):-	>15hrs with standard battery (1700mAh) DMR mode >11hrs with standard battery (1700mAh) Analogue mode
MILSTD & IP Rating:	MILSTD810F/MILSTD810C.D&E. IP65 for dust/water

Receiver Specifications

Analogue Sensitivity:	>0.22uV / -120dBm (12dB SINAD) >0.35uV / -116dBm (20dB SINAD)
Digital Sensitivity:	0.22uV / -120dBm (BER 5%) 0.25uV / -118dBm (BER 1%)
Intermodulation:	TIA603 70dB; ETSI 65dB
Adjacent Channel Selectivity:-	TIA603C 70dB / TESI: 70dB@25KHz TIA603C 60dB / TESI: 60dB@12.5KHz
Spurious Rejection:-	TIA603C: 75dB / ETSI: >70dB
Blocking:	84dB
Rated Audio:	Typically 1W
Audio Distortion:-	<3% @ rated audio
Audio Response:-	+1 ~-3dB
Conducted Spurious Emission:-	-57dBm @ <1GHz / -47dBm @ >1GHz (ETSI 300-086)

Transmitter Specifications

Frequency Stability:-	1ppm (-30°C to +60°C, 25°C ref)
Power Output:-	1W (L), 4W (H) [UHF], 1W (L), 5W (H) [VHF]
Modulation Limiting:-	+/- 2.5KHz (@12.5KHz), +/- 5KHz (@25KHz)
FM Hum and Noise:-	<40dB typical (@12.5KHz), <- 45dB (@25KHz)
Conducted/Radiated Emissions:-	<-36dBm, <1GHz, -30dBm, >1GHz
Adjacent Channel Power:-	<-60dB @ 12.5KHz, <-70dB @ 25KHz
Adjacent Transient Channel Power:-	-50dB
Audio Response:-	+1 ~ -3dB (300-3000Hz)
Audio Distortion:-	<3%
Vocoder:	AMBE+2
Digital Protocol:	ETSI TS 102 361-1, -2, -3

R&TTE and RED Information

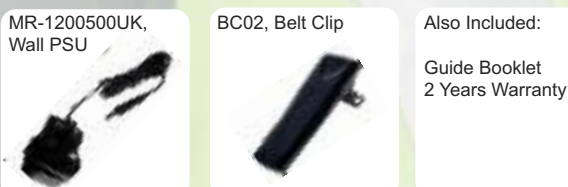
The DR5100 is independently tested and certified by Bay Area Compliance Labs in accordance with the R&TTE directive 1999/5/EC and the Radio Equipment Directive 2014/53/EU which came into effect as of 13th June 2017 with the following standards/specifications:

ETSI EN301 489-1 V2.2.1 (2019-03)
ETSI EN301 489-5 V2.2.1 (2019-04)
ETSI EN300 086 V2.1.2 (2016-08)
ETSI EN300 113 V2.2.1 (2016-12)

Report No RDG190624001-SF-Aq applies and can be issued (68 pages) on request.

The DR5100 is also tested in accordance with EN5056: 2017 / EN62209-1:2016 / EN62209-2: 2010 and REDCA Technical guidance Note 20 for SAR Testing and Assessment guidance, for compliance in Specific Absorption Rate (SAR) limits applicable to the occupational/controlled exposure that are specified in ICNIRP guidelines. Additional Information available on request.

Standard Package Contents:



Dealer Details: