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You can read the recommendations in the user guide, the technical guide or the installation guide for ICOM IC-F3162DT. You'll find the answers to all your questions on the ICOM IC-F3162DT in the user manual (information, specifications, safety advice, size, accessories, etc.). Detailed instructions for use are in the User's Guide.

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IDAS™ dPMR™ Features

6.25kHz narrowband FDMA technology

IDAS dPMR radios only use 6.25kHz per channel. In general, the narrower the channel, the better the sensitivity becomes, and longer communication ranges can be obtained. Where installation conditions allow, FDMA system can be deployed two repeater sites using two 6.25kHz channels to greater increase the communication coverage in total, but still only using 6.25kHz spectrum. The spectrum efficiency of FDMA is maintained in direct peer-to-peer communication at 6.25kHz, where comparing TDMA systems require infrastructure to achieve the same efficiency.

IFDMA

TDMA

Digital signal coverage

When comparing digital with analogue FM, the audio quality of analogue FM gradually deteriorates with static noise as the distance increases. On the other hand, IDAS dPMR digital audio provides static noise free, stable audio for longer until the fringes of the communication range.

Digital/analogue mixed mode operation

IDAS dPMR radios have built-in CTCSS/CTCSS, 5-Tone and BIS 1200 signalling, and are designed to coexist with analogue radio systems. IDAS dPMR radios can receive both analogue and digital mode signals on a single channel. When receiving an analogue call on a channel set to "Mixed-digital", the analogue talk back function allows you to reply to the call in the analogue mode.

Selective call and group call

IDAS dPMR radios allow you to call individual or group users. The way of call set-up is similar to the analogue BIS 1200 system. Analogue users can introduce IDAS dPMR without hesitation or a new learning curve with these new radios.

Data communication

IDAS dPMR radios provide status call, short data messages and GPS position data with voice communication. When IDAS dPMR radios are connected to a PC or other external equipment, the IDAS dPMR transparent data mode provides up to 3,600 bps data communication in a 6.25kHz channel.

Secure communication

Using digital modulation, the IDAS dPMR radio cannot be easily monitored with an analogue receiver. When secure communication is required, the IDAS system provides a built-in digital voice scrambler using a 16-bit key (about 32,000 codes).

Up to 16 IDAS™ dPMR™ repeater connection

With the optional UC-FR2000 (IP2 version required), up to 16 IDAS dPMR repeaters can be interlinked over an IP network to extend your communication coverage.

SPECIFICATIONS		IC-F3162DT	IC-F3162DT-2	IC-F3162DT-3	IC-F3162DT-4	IC-F3162DT-5	IC-F3162DT-6
Frequency coverage	156-174MHz	156-174MHz	156-174MHz	156-174MHz	156-174MHz	156-174MHz	156-174MHz
Number of channels	16	16	16	16	16	16	16
Type of emission	4FSK, 4GFSK, 4GFDX, 4GFSK/4, 4GFSK/4GFDX	4FSK, 4GFSK, 4GFDX, 4GFSK/4, 4GFSK/4GFDX	4FSK, 4GFSK, 4GFDX, 4GFSK/4, 4GFSK/4GFDX	4FSK, 4GFSK, 4GFDX, 4GFSK/4, 4GFSK/4GFDX	4FSK, 4GFSK, 4GFDX, 4GFSK/4, 4GFSK/4GFDX	4FSK, 4GFSK, 4GFDX, 4GFSK/4, 4GFSK/4GFDX	4FSK, 4GFSK, 4GFDX, 4GFSK/4, 4GFSK/4GFDX
Maximum operating altitude	6,500 ft (2,000 m)	6,500 ft (2,000 m)	6,500 ft (2,000 m)	6,500 ft (2,000 m)	6,500 ft (2,000 m)	6,500 ft (2,000 m)	6,500 ft (2,000 m)
Control class requirement	16-17 U.S.	16-17 U.S.	16-17 U.S.	16-17 U.S.	16-17 U.S.	16-17 U.S.	16-17 U.S.
Rx	15A	15A	15A	15A	15A	15A	15A
Max. audio	15A	15A	15A	15A	15A	15A	15A
Power supply	400mAh NiMH	400mAh NiMH	400mAh NiMH	400mAh NiMH	400mAh NiMH	400mAh NiMH	400mAh NiMH
Memory	3200 memory	3200 memory	3200 memory	3200 memory	3200 memory	3200 memory	3200 memory
Maximum range	3440 repeats (100% repeater)	3440 repeats (100% repeater)	3440 repeats (100% repeater)	3440 repeats (100% repeater)	3440 repeats (100% repeater)	3440 repeats (100% repeater)	3440 repeats (100% repeater)
Transmitting power	50W	50W	50W	50W	50W	50W	50W
Receiver sensitivity	0.3µV (12dB)	0.3µV (12dB)	0.3µV (12dB)	0.3µV (12dB)	0.3µV (12dB)	0.3µV (12dB)	0.3µV (12dB)
Modulation deviation	±7.5kHz (max)	±7.5kHz (max)	±7.5kHz (max)	±7.5kHz (max)	±7.5kHz (max)	±7.5kHz (max)	±7.5kHz (max)
Frequency response	300-3000 Hz	300-3000 Hz	300-3000 Hz	300-3000 Hz	300-3000 Hz	300-3000 Hz	300-3000 Hz
Dynamic range	110 dB	110 dB	110 dB	110 dB	110 dB	110 dB	110 dB
Audio frequency response	170 Hz to 2400 Hz	170 Hz to 2400 Hz	170 Hz to 2400 Hz	170 Hz to 2400 Hz	170 Hz to 2400 Hz	170 Hz to 2400 Hz	170 Hz to 2400 Hz
Audio frequency response (bandwidth)	170 Hz to 2400 Hz	170 Hz to 2400 Hz	170 Hz to 2400 Hz	170 Hz to 2400 Hz	170 Hz to 2400 Hz	170 Hz to 2400 Hz	170 Hz to 2400 Hz
FM deviation	±7.5kHz	±7.5kHz	±7.5kHz	±7.5kHz	±7.5kHz	±7.5kHz	±7.5kHz
Modulation deviation	±7.5kHz	±7.5kHz	±7.5kHz	±7.5kHz	±7.5kHz	±7.5kHz	±7.5kHz
Frequency response (bandwidth)	300-3000 Hz	300-3000 Hz	300-3000 Hz	300-3000 Hz	300-3000 Hz	300-3000 Hz	300-3000 Hz
Dynamic range	110 dB	110 dB	110 dB	110 dB	110 dB	110 dB	110 dB
Audio frequency response	170 Hz to 2400 Hz	170 Hz to 2400 Hz	170 Hz to 2400 Hz	170 Hz to 2400 Hz	170 Hz to 2400 Hz	170 Hz to 2400 Hz	170 Hz to 2400 Hz
Audio frequency response (bandwidth)	170 Hz to 2400 Hz	170 Hz to 2400 Hz	170 Hz to 2400 Hz	170 Hz to 2400 Hz	170 Hz to 2400 Hz	170 Hz to 2400 Hz	170 Hz to 2400 Hz

FUNCTION COMPARISON

Function	IC-F3162DT	IC-F3162DT-2	IC-F3162DT-3	IC-F3162DT-4	IC-F3162DT-5	IC-F3162DT-6
Frequency coverage	✓	✓	✓	✓	✓	✓
Number of channels	✓	✓	✓	✓	✓	✓
Type of emission	✓	✓	✓	✓	✓	✓
Maximum operating altitude	✓	✓	✓	✓	✓	✓
Control class requirement	✓	✓	✓	✓	✓	✓
Rx	✓	✓	✓	✓	✓	✓
Max. audio	✓	✓	✓	✓	✓	✓
Power supply	✓	✓	✓	✓	✓	✓
Memory	✓	✓	✓	✓	✓	✓
Maximum range	✓	✓	✓	✓	✓	✓
Transmitting power	✓	✓	✓	✓	✓	✓
Receiver sensitivity	✓	✓	✓	✓	✓	✓
Modulation deviation	✓	✓	✓	✓	✓	✓
Frequency response	✓	✓	✓	✓	✓	✓
Dynamic range	✓	✓	✓	✓	✓	✓
Audio frequency response	✓	✓	✓	✓	✓	✓
Audio frequency response (bandwidth)	✓	✓	✓	✓	✓	✓
FM deviation	✓	✓	✓	✓	✓	✓
Modulation deviation	✓	✓	✓	✓	✓	✓
Frequency response (bandwidth)	✓	✓	✓	✓	✓	✓
Dynamic range	✓	✓	✓	✓	✓	✓
Audio frequency response	✓	✓	✓	✓	✓	✓
Audio frequency response (bandwidth)	✓	✓	✓	✓	✓	✓



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Manual abstract:

25kHz channels to greater increase FDMA 12.5kHz Channel 1 (Voice Path 1) Channel 2 (Voice path 2) the communication coverage in total, but still only using 6.25kHz spectrum. @ audio 1.9A Standby 400mA (Fan, backlight off) 400mA (Fan, backlight off) Antenna impedance 50W (Type-N x 2) Operating temperature range 25°C to +55°C Dimensions (WxHxD) 483x88x260 mm (Projections not included) GENERAL 136174MHz 400470MHz Max. 32 channels 16K0F3E, 14K0F3E, 8K50F3E, 4K00F1E, 4K00F1D, 4K00F3E 6.25kHz/12.5kHz/20kHz/25kHz 2.5kHz, 3.125kHz 13. 2V DC 136174MHz 400470MHz Max. 512 channels/128 zones 16K0F3E, 14K0F3E, 8K50F3E, 4K00F1E, 4K00F1D 6.25kHz/12.5kHz/20kHz/25kHz 2.5kHz, 3.

125kHz 7.2V DC (nominal) 1.5A 600mA 150mA 50W 25°C to +55°C 53x136x38.5 mm (with BP-232N) 340g (approx.) (with BP-232N) 5W/2W/1W ±5. 0/4.0/2.5kHz (W/M/N) ±1.0ppm 0.25µW (1GHz) 1.0µW (>1GHz) 3% typ. (40% deviation) 9-pin multi-connector (2.2kW) 4dBµV typ. 8dBµV typ. 75/75/68dB typ.

(W/M/N) 70dB min. (W/M/N) 67dB typ. (W/M/N) 500mW typ. with an 8W load 136174MHz 400470MHz Max. @@(40% deviation) 8-pin modular (600W) - 4dBµV typ. 8dBµV typ. 85/83/75dB typ. (W/M/N) 90dB typ. (W/M/N) 70dB typ. (W/M/N) 4. 0W typ. @@@@ Channel 2 (6.25kHz) ±5.0/4.0/2.

5kHz (W/M/N) ±0.2kHz ±0.5kHz 0.25µW (1GHz) 1.0µW (>1GHz) 1% typ.

(40% deviation) 8-pin modular (600W) 4dBµV typ. 6dBµV typ. 86/83/77dB typ. (W/M/N) 80/78/70dB typ. (W/M/N) 67dB typ. (digital) 45dB min. (digital) 80dB typ. (W/M/N) 70dB min. (W/M/N) 90dBµV typ. (digital, emf) 70dBµV min.

(digital, emf) 72/72/71dB typ. (W/M/N) 70dB typ. (W/M/N) 76dBµV typ. (digital, emf) 71dBµV min. @@@@ IDAS and IDAS logo are trademarks of Icom Incorporated. dPMR and the dPMR logo are trademarks of the dPMR MoU Association. AMBE+2 is a trademark and property of Digital Voice Systems, Inc. @@The way of call set-up is similar to the analogue BIIS 1200 system. @@When secure communication is required, the IDAS system provides a built-in digital voice scrambler using a 15-bit key (about 32,000 codes). Les spécifications et informations données dans ce document peuvent être modifiées sans préavis.

ICOM FRANCE Zac de la Plaine - I, Rue Brindejonc des Moulinais BP 45804 - 31505 TOULOUSE CEDEX 5 Tél : 05 61 36 03 03 - Fax : 05 61 36 03 00 WEB ICOM : <http://www.icom-france.com> E-mail : icom@icom-france.com Data communication IDAS dPMR radios provide status call, short data messages and GPS position data with voice communication. When IDAS dPMR radios are connected to a PC or other external equipment, the IDAS dPMR transparent data mode provides up to 3,600 bps data communication in a 6.

25kHz channel. Up to 16 IDASTM dPMRTM repeater connection With the optional UC-FR5000 (#12 version required), up to 16 IDAS dPMR repeaters can be interlinked over an IP network to extend your communication coverage. CACHET REVENDEUR VHF DIGITAL/ANALOGUE REPEATER UHF DIGITAL/ANALOGUE REPEATER dPMRTM Introduction and History dPMR stands for "digital Private Mobile Radio" and it is an open standard digital radio protocol published by the European Telecommunications Standards Institute (ETSI). @@@@with BP-232N battery pack) * Tx: Rx: standby=5:5:90. Power save on.

(at 20°C) · Loud speaker audio with BTL amplifier HS-95 Behind-the-head Headset UC-FR5000 (#12) IDAS dPMR Network Controller For IDAS dPMR IP networking · Audio compander (For analogue FM mode) · 32 status message memories with ambience listening, radio stun/kill/ revive functions (For IDAS dPMR mode) · Up to 100 characters short data message memories (For IDAS dPMR mode) · Built-in 5-Tone/CTCSS/DTCS/BIIS 1200 signaling (For analogue FM mode) · 8 DTMF autodial memories · Built-in inversion type voice scrambler and optional UT-109R/ UT-110R for higher security (For analogue FM mode) · Optional GPS speaker-microphone for sending position data · Voting scan automatically selects the strongest station or the first station to exceed the preset signal level VS-ISC PTT/VOX Unit dPMR Peer-to-peer mode Mode 1 dPMR Conventional repeater mode Mode 2 IP Network · 5-Tone and DTMF encoder/decoder (5-Tone is for analogue FM mode) · D-Sub 25-pin accessory connector for connecting analogue trunking controllers or other external devices · Audio compander (For analogue FM mode) · Built-in inversion type voice scrambler and optional UT-109R/UT-110R for higher security (For analogue FM mode) · CW ID transmitter UR-FR5100 (136174MHz) UR-FR6100 (400470MHz) Channel Modules Two RF units can be installed in the unit. (Left side is an option.) dPMRTM MoU (Memorandum of Understanding) Group The dPMR standard is delivered by the initial responsibility of the dPMR MoU group under the mandate of ETSI. @@@@In a building all the way from the basement to the top floor, radio communication can be covered using already deployed LAN cables. VHF DIGITAL/ANALOGUE TRANSCIEVER UHF DIGITAL/ANALOGUE TRANSCIEVER dPMRTM history and evolution December 2005 dPMR 446 Tier 1 standard (TS 102 490) was published by ETSI based on the output of their TG-DMR working group February 2006 The first dPMR446 compatible radio, IC-F4029SDR released March 2007 dPMR MoU group was founded with the first member companies September 2008 Four new members joined the dPMR MoU group for a t.



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