

ALINCO

DMR
DIGITAL MOBILE RADIO ASSOCIATION



Mobile Transceiver

VHF DR-D18 / D18H

UHF DR-D48 / D48H

The Cost-effective Digital Migration Solution.



Digital-Analog Dual mode

Smooth migration from analog to DMR 2-slot Tier II digital

1.8" Graphic Dot-matrix True Color Display

A large, full color, 5-line display

Transmit Interrupt

The priority signal request programmable

Real-time GPS Localization

Integrated GPS enables the real time tracking

Versatile Voice Calls & Data Services

Supports Private, Group, All and Emergency calls in voice, in addition to data services such as GPS and Text messages

Advanced Encryptions of Voice and Data

Enhanced ARC 40-bit digital encryption and scrambled analog call features

Multiple Analog Signaling Modes

Supports MDC1200, DTMF, 2- and 5-Tone signaling

- Standard 25W and High-Powered 45W(VHF)/40W(UHF) H models.

- Multi-lingual Display supports English, French, German, Spanish and more!

- 4 programmable keys provide one-touch operations.

- Radio check, Remote monitor, Call alert, Permanent-monitoring, Transmit interrupt, Stun / Kill / Revive and more!



Military Standards 810

Applicable MIL-STD	810C		810D		810E		810F		810G	
	METHODS	PROC/CAT	METHODS	PROC/CAT	METHODS	PROC/CAT	METHODS	PROC/CAT	METHODS	PROC/CAT
Low Pressure	500.1	I	500.2	II	500.3	II	500.4	II	500.5	II
High Temperature	501.1	I,II	501.2	I/ A1,II/ A1	501.3	I/ A1,II/ A1	501.4	I/Hot ,II/Hot	501.5	I/Hot A1,II/Hot (A1)
Low Temperature	502.1	I	502.2	I/C3,II/C1	502.3	I/C3,II/C1	502.4	I/C3,II/C1	502.5	I/C3,II/C1
Temperature Shock	503.1	-	503.2	I/A1C3	503.3	I/C1A3	503.4	I	503.5	I/C
Solar Radiation	505.1	II	505.2	I	505.3	I	505.4	I	505.5	I
Rain	506.1	I,II	506.2	I,II	506.3	I,II	506.4	I,III	506.5	I,III
Humidity	507.1	II	507.2	II	507.3	II	507.4	-	507.5	II
Salt fog	509.1	-	509.2	-	509.3	-	509.4	-	509.5	-
Dust	510.1	I	510.2	I	510.3	I	510.4	I	510.5	I
Vibration	514.2	VIII/FCURVE-W	514.3	I/10,II/3	514.4	I/10,II/3	514.5	I/24	514.6	I/24
Shock	516.2	I,II	516.3	I,IV	516.4	I,IV	516.5	I,IV	516.6	I,IV

Specifications

General

Mobiles

Frequency Range	VHF 136~174MHz, UHF 400~470MHz
Channel Capacity / Zone Capacity	1024 / 248
Channel Spacing	12.5KHz / 20KHz / 25KHz
Operating Voltage	13.8V ±15%
Dimension (approx. W x H x D)	176mm × 59mm × 183mm
Weight (approx.)	1.5kg

Transmitter

Mobiles

Frequency Stability	±0.5ppm
Power Output	DR-D18: 25W / D18H: 45W DR-D48: 25W / D48H: 40W
Modulation Limiting	±2.5kHz@12.5kHz, ±4.0kHz@20kHz, ±5.0kHz@25kHz
FM Hum and Noise	-40dB@12.5kHz, -45dB@20/25kHz
Conducted/Radiated Emission	-36dBm@<1GHz, -30dBm@>1GHz
Adjacent Channel Power	-60dB@12.5kHz, -70dB@20/25kHz
4FSK Digital Modulation	12.5KHz(data only) : 7K60FXD / 12.5KHz(data+voice) : 7K60FXE
Analog Modulation	11K0F3E@12.5kHz, 14K0F3E @20kHz, 16K0F3E@25kHz
Digital Protocol / Vocoder	ETSI TS102361-1, -2, -3 / AMBE+2™

Receiver

Mobiles

Frequency Stability	±0.5ppm
Analog / Digital Sensitivity	0.3 μV/(12dB SINAD) / 0.22 μV/BER5%
Intermodulation	TIA603C:70dB ETSI:70dB
Adjacent Channel Selectivity (ETSI)	60dB@12.5kHz, 70dB@20/25kHz
Spurious Response Rejection	TIA603C : 75dB, ETSI : 70dB
Audio output (Distortion 3% typ.)	approx.3W
Hum and Noise	-40dB@12.5kHz, -45dB@20/25kHz
Audio Response /Audio Distortion	+1 ~ -3dB/≤ 3% (typical)
Conducted Spurious Emission	-57dBm@<1GHz, -47dBm@>1GHz

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Authorized Dealer:

Standard Accessories



Bracket	DC-Cable	Microphone
ADFM517	ADUA100	EMS-82

Mounting hardware and spare fuse included.

Options

- PC interface cable ERW-19
Available exclusively to dealers.



- Remote / DTMF microphone EMS-84



GPS

Accuracy specs are for long-term tracking (95th percentile values >5 satellites visible at normal -130dbm signal strength.)

TIFF Cold start (Time to First Fix)	<60 sec.
TIFF hot start (Time to First Fix)	<10 sec.
Horizontal Accuracy	<5meters mobiles, <5m Handhelds

Environmental Specifications

Operating Temperature	-30°C ~ +60°C
Storage Temperature	-45°C ~ +85°C
ESD	IEC 61000-4-2
Ingress protection	IP 54

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ALINCO, INC. Electronics Division

Yodoyabashi Dai-Bldg 13F, 4-4-9 Koraihashi,
Chuo-ku, Osaka 541-0043 Japan
Phone: +81-6-7636-2362 Fax: +86-6-6208-3802
http://www.ALINCO.com
E-mail: export@alinco.co.jp

FNFNELNI-PE
Ver.1.0 DMR-Mo
Printed in Japan



Please be sure to read the instruction manual before using the product for your safety.

