

# 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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\* Projections are not included in the declared dimension values.  
\* Operator license may be required. Please consult your dealer for details.

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

