GLOBAL COMMUNICATION SERVICES

ALINCO DJ-DGX45

INTRINSICALLY SAFE PMR446 HANDHELD TRANSCEIVER

PRODUCT INFORMATION & USER REFERENCE GUIDE



AUTHORISED ALINCO DEALER
Global Communication Services | Mobile: +91-9872599700 | Email: gcssignals@gmail.com
globalcommunicationservices.co.in

1. Product Overview

The Alinco DJ-DGX45 is an intrinsically safe PMR446 handheld transceiver designed for communication in demanding industrial environments. It supports 16 PMR446 channels, 0.5W RF output and FM operation. Its IP67-rated construction and ATEX compliance ratings make it suitable for specified gas, dust and mining environments when the equipment configuration and certification match the workplace requirements.

Key Features

FEATURE	DESCRIPTION
Intrinsically safe construction	ATEX ratings for specified mining, gas and dust environments.
PMR446 operation	446–446.2 MHz frequency coverage, 16 channels and 0.5W RF output.
IP67 protection	Dust-tight construction with protection against water immersion under specified test conditions.
Built-in APRS	Supports live position and telemetry reporting.
Work Alone Safety	Supports lone workers with emergency alert functions.
Man Down Alert	Automatically sends alerts when a fall is detected.
Encryption support	AES256 and ARC40 encryption are supported.
Radio security functions	Radio check, call alert, stun, revive, kill and remote monitoring.
English voice guidance	Voice guidance is available in English.
Advanced noise reduction	Suppresses ambient noise to support clear and reliable audio.

2. General Specifications

SPECIFICATION	DETAIL
Model	Alinco DJ-DGX45 (PMR446)
Radio type	Intrinsically safe handheld transceiver
Frequency range	446–446.2 MHz
RF output power	0.5W
Channels	16
Bandwidth	12.5 kHz
Operating voltage	DC 7.4V (+/– 20%)
Frequency stability	±1.5 ppm
Battery	3400mAh intrinsically safe Li-ion
Audio power	2W maximum
Operating temperature	–30°C to +60°C
Dimensions	142 × 60 × 48 mm
Weight	308g with battery pack
Protection rating	IP67
Gas rating	II 2G Ex ib IIB T4 Gb
Dust rating	II 2D Ex ib IIIC T130°C Db
Mining rating	I M2 Ex ib I Mb

3. Transmitter Specifications

PARAMETER	DETAIL
RF power output	0.5W
Analog modulation	11K0F3E (Narrow)
Adjacent channel power	≥ 60 dB (Narrow)
Spurious emission	≤ –36 dB (<1 GHz); ≤ –30 dB (>1 GHz)
Audio distortion	≤ 3%
Audio power	Up to 2W

4. Receiver Specifications

PARAMETER	DETAIL
Analog sensitivity (12dB SINAD)	≤ 0.22 µV @ 12dB SINAD
Inter-modulation	≥ 60 dB
Spurious rejection	≥ 60 dB
Adjacent channel selectivity	≥ 60 dB (Narrow)

5. Environmental Testing

Temperature shock, humidity and vibration testing: MIL-STD-810C, D, E, F, G and H.

6. Accessories and Optional Equipment

ITEM	MODEL / DETAILS
Earphone microphone	EME-94 (optional)
Battery pack	EBP-122 — Li-ion 7.4V, 3400mAh
Battery charger	EDC-349
AC adapter	EDC-350 (220V)
Whip antenna	EA-329 (VHF) or EA-333 (UHF)
Belt clip	EBC-73
USB cable	EDS-53

IMPORTANT SAFETY NOTICE
Use only accessories approved for the intrinsically safe configuration. Accessory compatibility is safety-critical. Confirm the exact supplied configuration and applicable instructions before use.

7. Product Enquiries

For product availability, compatible accessories and quotations, contact Global Communication Services. We are an authorised Alinco dealer and support customers with communication equipment requirements across India.

GLOBAL COMMUNICATION SERVICES | AUTHORISED ALINCO DEALER

Mobile: +91-9872599700 | Email: gcssignals@gmail.com

globalcommunicationservices.co.in

This GCS-branded document is a product information and reference guide, not a replacement for the official Alinco instruction manual. Read the manufacturer's instructions before operating the radio. Confirm that the equipment's ATEX rating, approved accessories and configuration are suitable for the intended hazardous area. Applicable radio approvals and operating rules must be checked for the country of use.