



# **TM-281A**

# 144 MHz FM Transceiver

Whatever the mission, wherever you go, Kenwood's TM-281A is a radio you can count on. This compact transceiver delivers powerful mobile performance and such advanced features as multiple scan functions and memory names. High-quality audio is assured by the large speaker. Naturally, MIL-STD compliant toughness ensures rugged reliability. And operating ease is second to none: illuminated keys and a large LCD with adjustable backlighting make for user-friendly operation day or night.

#### RUGGED, COMPACT CONSTRUCTION

The TM-281A is tough enough for off-road assignments: it meets the strict U.S. Department of Defense MIL-STD 810 C, D, E, F & G environmental standards for vibration and shock. Installation is easy due to its compact dimensions: 160 (W) x 43 (H) x 126 (D)\* mm .



\* Total depth of 170.5 mm with protrusion

#### **HIGH POWER OUTPUT (65W)**

Even with its compact size, the TM-281A delivers up to 65 watts — the sort of RF power you want in the wilderness — with a choice of High/Low output. A hand microphone is also supplied as standard.

#### ALPHANUMERIC LCD AND ILLUMINATED KEYPAD

The vivid amber LCD display comes with a 32-step brightness control to suit any ambient light conditions. It displays up to 6 large alphanumeric characters. The front panel keypads are also illuminated for ease of use.







ode Power-on Message

## IMPRESSIVE FRONT SPEAKER

The large oval speaker (58 x 35 mm) mounted in the front ensures every message is heard loud and clear.

## **MEMORY NAME FUNCTION**

Up to 100 memory channels can be identified with a maximum of 6 alphanumeric characters each. (200 channels are available if the memory name function is not used.)

#### 200 MEMORY CHANNELS PLUS 1 CALL-CHANNEL

Each of the memory channels can be used to store transmit and receive frequencies independently. Additionally, memory data can be edited and stored on a computer\*.



\*Requires USB Programming Cable KPG-46U, and Memory Control Software MCP-1A (Ver.3.0 or later); consult your local dealer for details on purchasing these options.

#### **MULTIPLE SCAN FUNCTIONS**

Included as standard are VFO scan, memory scan, call scan, Tone/CTCSS scan and DCS scan – with TO (Time-operated), CO (carrier-operated) and seek scan resume modes. Also priority scan is available to check the Priority channel every 3 seconds.

#### CTCSS & DCS ENCODER/DECODER

The built-in CTCSS and DCS encoder/decoder covers 42 CTCSS sub-tone frequencies and 104 DCS sub-tone frequencies.

#### **OTHER FUNCTIONS**

Power-on Message
 Wide/Narrow Deviation Selection (per channel)
 1750 Hz
 Tone Burst
 Automatic Simplex Checker
 Reverse Function
 Auto Repeater
 Offset
 Beep On/Off
 Auto Power Off
 Time-Out Timer
 Channel Display Mode
 Busy Channel Lockout
 Memory Channel Lockout
 MR-shift
 Direct Frequency
 Entry
 Key Lock



# **Options**



Not all accessories are available in all markets. For availability, contact your nearest dealer.

**Specifications** 

|                             | TM-281A                                    |                             | TM-281A  |  |
|-----------------------------|--|-----------------------------|--|--|
| GENERAL                     |  | TRANSMITTER                 |  |  |
| Frequency Range             |  | RF Power Output Hi / Lo     | 65 W / 25 W  |  |
| TX<br>RX                    | 136 - 174 MHz<br>136 - 174 MHz<br>F3E (FM) | Modulation                  | Variable reactance modulation                                  |  |
| Mode                        |  | Maximum Frequency Deviation | Wide: ±5 kHz, Narrow: ±2.5 kHz  Less than 3 % (300 Hz - 3 kHz) |  |
| Power Requirement           | 13.8 V DC ±15 %, negative ground           | Modulation Distortion       |  |  |
| Curent Drain                |  | RECEIVER                    |  |  |
| Transmit                    | Less than 14 A (High), less than 8 A (Low) | Circuitry                   | Double super heterodyne  |  |
| Receive                     | Less than 1 A                              | Intermediate                |  |  |
| Operation Temperature Range | -20 °C ~ +60 °C                            | 1st IF                      | 49.95 MHz  |  |
| Antenna Impedance           | 50 Ω                                       | 2nd IF                      | 450 kHz  |  |
|                             |  | Sensitivity (12 dB SINAD)   | Less than 0.18 $\mu V$   |  |
| Microphone Impedance        | 600 Ω                                      |                             | (Narrow: less than 0.22 μV)                                    |  |
| Frequency Tolerance         | ±2.5 ppm (-20 °C ~ +60 °C)                 | Squelch Sensitivity         | Less than 0.1 μV   |  |
| Dimensions (W x H x D),     | 160 x 43 x 126 mm                          | Selectivity                 |  |  |
| (Projections included)      | 161 x 43 x 170.5 mm                        | -6 dB                       | More than 12 kHz (Narrow: more than 10 kHz                     |  |
| , -,1,                      |  | -60 dB                      | Less than 30 kHz (Narrow: less than 24 kHz)                    |  |
| Weight                      | 1.13 kg                                    | Audio Output Power          | More than 2 W (5 % distortion)                                 |  |

Kenwood follows a policy of continuous advancement in development. For this reason specifications may be changed without notice.

# **Applicable MIL-STD**

| MIL-STD   | MIL 810C<br>Methods/Procedures | MIL 810D<br>Methods/Procedures | MIL 810E<br>Methods/Procedures | MIL 810F<br>Methods/Procedures | MIL 810G<br>Methods/Procedures |
|-----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Vibration | 514.2/Procedure VIII, X        | 514.3/Procedure I Category 8   | 514.4/Procedure I Category 8   | 514.5/Procedure I Category 20  | 514.6/Procedure I Category 20  |
| Shock     | 516.1/Procedure I, II, V       | 516.3/Procedure I , IV         | 516.4/Procedure I , IV         | 516.5/Procedure I , IV         | 516.6/Procedure I , IV         |

Listen to the Future

Kenwood has always connected with people through sound. Now we want to expand the world of sound in ways that only Kenwood can, listening to our customers and to the pulse of the coming age as we head toward a future of shared discovery, inspiration and enjoyment.

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