

# KENWOOD



## TM-281A/481A

144/430 MHz FM Transceivers

Whatever the mission, wherever you go, Kenwood's TM-281A/481A 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/481A 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

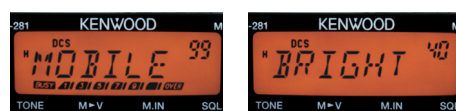


### HIGH POWER OUTPUT (65W: TM-281A)

Even with its compact size, the TM-281A delivers up to 65 watts (45 watts for the TM-481A), with a choice of High/Low output. A DTMF 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 and microphone keypad are also illuminated for ease of use.



Memory name

Menu Mode



Power-on Message

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.

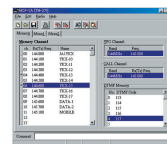
### MEMORY NAME FUNCTION

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



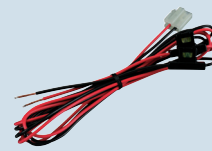
■ **KMC-30**  
Microphone



■ **MC-59**  
Keypad Microphone



■ **MC-60A**  
Desktop Microphone



■ **PG-2N**  
DC Power Cable



■ **PG-3B**  
DC Line Noise Filter



■ **PS-60**  
DC Power Supply



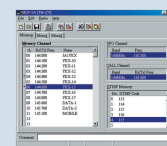
■ **KPG-46U**  
USB Programming Cable  
(USB driver can be downloaded from the Kenwood website)



■ **SP-50B**  
External Speaker



■ **MJ-88**  
Microphone Plug Adapter



■ **MCP-1A** (Ver. 3.0 or later)  
Memory Control Software  
(available free for downloading from the Kenwood website)

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

## Specifications

TM-281A		TM-481A
GENERAL		
Frequency Range		
TX	136 - 174 MHz	400 - 470 MHz
RX	136 - 174 MHz	400 - 470 MHz
Mode	F3E (FM)	
Power Requirement	13.8 V DC ±15 %, negative ground	
Current Drain		
Transmit	Less than 14 A (High), less than 8 A (Low)	
Receive	Less than 1 A	
Operation Temperature Range	-20 °C ~ +60 °C	
Antenna Impedance	50 Ω	
Microphone Impedance	600 Ω	
Frequency Tolerance	±2.5 ppm (-20 °C ~ +60 °C)	
Dimensions (W x H x D), (Projections included)	160 x 43 x 126 mm 161 x 43 x 170.5 mm	
Weight	1.13 kg	

TM-281A		TM-481A
TRANSMITTER		
RF Power Output Hi / Lo	65 W / 25 W	45 W / 25 W
Modulation	Variable reactance modulation	
Maximum Frequency Deviation	Wide: ±5 kHz, Narrow: ±2.5 kHz	
Modulation Distortion	Less than 3 % (300 Hz - 3 kHz)	
RECEIVER		
Circuitry	Double super heterodyne	
Intermediate Frequency		
1st IF	49.95 MHz	
2nd IF	450 kHz	
Sensitivity (12 dB SINAD)	Less than 0.18 uV (Narrow: less than 0.22 uV)	Less than 0.20 uV (Narrow: less than 0.25 uV)
Squelch Sensitivity	Less than 0.1 uV	
Selectivity		
-6 dB	More than 12 kHz (Narrow: more than 10 kHz)	
-60 dB	Less than 30 kHz (Narrow: less than 24 kHz)	
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 Methods/Procedures	MIL 810D Methods/Procedures	MIL 810E Methods/Procedures	MIL 810F Methods/Procedures	MIL 810G 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

## Kenwood Electronics Singapore Pte. Ltd.

1 Ang Mo Kio Street 63 Singapore 569110

Website : <http://sg.kenwood.com>

email : [sales@kenwoodaudio.com](mailto:sales@kenwoodaudio.com)



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