

# APX™ SINGLE-BAND CONSOLETTTE

700 MHz  
800 MHz



## TRANSMITTER - TYPICAL PERFORMANCE SPECIFICATIONS

|   | 700 MHz                    | 800 MHz                                |
|---|----------------------------|--|
| Frequency Range/Bandsplits                              | 764-776 MHz<br>794-806 MHz | 806-824 MHz<br>851-870 MHz             |
| Channel Spacing   | 25 / 12.5 kHz              | 25 / 12.5 kHz                          |
| Maximum Frequency Separation                            | Full Bandsplit             | Full Bandsplit                         |
| Rated RF Output Power Adj*                              | 10-30 W                    | 10-35 W                                |
| Frequency Stability*<br>(-30 °C to +60 °C; +25 °C Ref.) | ±0.00015%                  | ±0.00015%                              |
| Modulation Limiting*                                    | ±5 kHz / ±2.5 kHz          | ±5 kHz / ±4 kHz<br>(NPSPEC) / ±2.5 kHz |
| Modulation Fidelity (C4FM)<br>12.5 kHz Digital Channel  | ±2.8 kHz                   | ±2.8 kHz                               |
| Emissions*  | Conducted+<br>-70/-80 dBc  | Radiated+<br>-20/-40 dBm               |
| Audio Response*   | +1, -3 dB (EIA)            | +1, -3 dB (EIA)                        |
| FM Hum & Noise  | 25 & 20 kHz<br>12.5 kHz    | -40 dB<br>-34 dB                       |
| Audio Distortion*                                       | 2%                         | 2%                                     |

## DIMENSIONS

|                     |   |
|---------------------|---|
| Standard Model      | 16.0 x 18.0 x 4.2 in (406 x 457 x 107 mm), WxDxH<br>18.5 lbs (8.4 kg) |
| Full-Featured Model | 16.0 x 18.8 x 4.2 in (406 x 476 x 107 mm), WxDxH<br>19.5 lbs (8.9 kg) |

## RECEIVER - TYPICAL PERFORMANCE SPECIFICATIONS

|   | 700 MHz                      | 800 MHz                 |
|---|------------------------------|-------------------------|
| Frequency Range/Bandsplits                              | 764-776 MHz                  | 851-870 MHz             |
| Channel Spacing   | 25 / 12.5 kHz                | 25 / 12.5 kHz           |
| Maximum Frequency Separation                            | Full Bandsplit               | Full Bandsplit          |
| Audio Output at 3% Distortion*                          | 2.5 W++                      | 2.5 W++                 |
| Frequency Stability*<br>(-30 °C to +60 °C; +25 °C Ref.) | ±0.00015%                    | ±0.00015%               |
| Analog Sensitivity* (12 dB SINAD)                       | 0.25 µV                      | 0.25 µV                 |
| Digital Sensitivity                                     | (1% BER)<br>(5% BER)         | 0.3 µV<br>0.25 µV       |
| Intermodulation   | 80 dB                        | 80 dB                   |
| Spurious Rejection                                      | 90 dB                        | 90 dB                   |
| Audio Distortion at rated*                              | 3.00%                        | 3.00%                   |
| Selectivity*  | 25 kHz<br>12.5 kHz<br>30 kHz | 80 dB<br>80 dB<br>65 dB |

## ENVIRONMENTAL SPECIFICATIONS

|                               |                                     |
|-------------------------------|-------------------------------------|
| Operating Temperature         | -22 °F to 140 °F (-30 °C to +60 °C) |
| Storage Temperature           | -40 °F to 185 °F (-40 °C to +85 °C) |
| Humidity                      | 95% relative humidity               |
| Electrostatic Discharge (ESD) | Per IEC 61000-4-2                   |
| Duty Cycle                    | Per EIA/TIA Intermittent Duty Cycle |

## FEATURES AND CAPABILITIES

| STANDARD   | OPTIONAL  |
|--|---|
| 700 MHz or 800 MHz Band  | Enhanced Encryption Software  |
| Up to 50 W Output Power  | Programming over Project 25 (POP25)   |
| Clear or Encrypted Digital P25 Trunked Operation                   | Text Messaging  |
| SmartZone®, SmartZone Omnilink, SmartNet® Analog Trunked Operation | Over the Air Rekeying (OTAR)  |
| Digital P25 Conventional Operation                                 |   |
| Analog MDC-1200 Conventional Operation                             | Extended Dispatch Operation including: <ul style="list-style-type: none"> <li>• Emergency Alarm ACK Encode</li> <li>• Radio Inhibit/Uninhibit Encode</li> <li>• Radio Monitor Encode</li> <li>• Radio Check Encode</li> <li>• Status Query Encode</li> <li>• Status Query Response Decode</li> <li>• Status Update Decode</li> <li>• Message Update Decode</li> </ul> |
| Intelligent Lighting   |   |
| Unified Call List  |   |
| Tone Remote Control  |   |
| 110/240 VAC power with battery revert capability                   |   |

## USER INTERFACE

| STANDARD MODEL   | FULL-FEATURED MODEL   |
|--|---|
| 4-line Tri-color LCD display <ul style="list-style-type: none"> <li>• 1 line radio status icons</li> <li>• 2 lines text, up to 14 characters per line</li> <li>• 1 line soft menu key legends</li> </ul> | Adds Auxiliary User Interface: <ul style="list-style-type: none"> <li>• Clock and VU Meter</li> <li>• Crosspatch Interface</li> <li>• Auxiliary Controls</li> <li>• Secondary Microphone Connector</li> </ul> |
| 5 programmable soft keys   |   |
| Navigation Pad   |   |
| Volume knob  |   |
| Mode Selector  |   |
| Emergency Button   |   |
| Microphone Connector   |   |

\* Measured in the analog mode per TIA/EIA 603 under nominal conditions  
 Specifications subject to change without notice. All specifications shown are typical values

## ENCRYPTION

|                                   |  |
|-----------------------------------|--|
| Supported Encryption Algorithms   | ADP, AES, DES, DES-XL, DES-OFB, DVP-XL   |
| Encryption Algorithm Capacity     | 8  |
| Encryption Keys per Radio         | Module capable of storing 1024 keys. Programmable for 128 Common Key Reference (CKR) or 16 Physical Identifier (PID) |
| Encryption Frame Re-sync Interval | P25 CAI 300 mSec   |
| Encryption Keying                 | Key Loader   |
| Synchronization                   | XL – Counter Addressing<br>OFB – Output Feedback   |
| Vector Generator                  | National Institute of Standards and Technology (NIST) approved random number generator                               |
| Encryption Type                   | Digital  |
| Key Storage                       | Tamper protected volatile or non-volatile memory   |
| Key Erasure                       | Keyboard command and tamper detection  |
| Standards                         | FIPS 140-2 Level 3<br>FIPS 197   |

## INTERFACES

| FRONT                                      | REAR           |
|--|----------------|
| Microphone Connector                       | Recorder       |
| Secondary Microphone (Full-Featured Model) | Wireline       |
|  | Interface Port |
|  | Crosspatch     |
|  | Power          |

For more information, please visit us on the web at: [www.motorolasolutions.com/APX](http://www.motorolasolutions.com/APX)



Motorola Solutions, Inc. 500 West Monroe Street, Chicago, IL 60661 U.S.A. [motorolasolutions.com](http://motorolasolutions.com)

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