

KF510 series VHF/UHF PMR and MPT1327 trunked base stations



The KF510 series of base stations feature rugged, reliable fixed base units for trunked and conventional applications. The transmitters are rated for continuous operation at full power and the receivers are designed for optimum performance in the strenuous, large signal environment of shared sites. The base station incorporates a fully flexible logic controller easily upgradeable (within the 2U 19 inch housing) from standard PMR local/remote operation through to the sophisticated enhanced Keynet 2 and Keynet 3 series of MPT1327 speech and data systems.



Features

- Standard 2U 19 inch rack mount or desk mount for local or remote operation
- Frequency ranges from 30MHz to 520MHz
- Standard versions: Full PMR for local/remote operation
PMR simply upgradeable to Keynet 2/3 MPT1327 operation
Keynet 2 MPT1327 operation
Keynet 3 MPT1327 operation
- Range of continuous RF power outputs from 1 to 50W.
Separate Tx and Rx antenna connectors
- Signaling options include CTCSS, DCS, 5-tone, DTMF and MPT1327 trunking
- LCD status display with 4 lines of 21 characters
- 12.5, 20, 25 or 30kHz channel spacing, programmable
- Front facing speaker, and full keypad
- Alpha channel names
- PC programmable
- CTCSS and DCS programmable for each channel
- Option of 2 receiver bands for reverse frequency operation
- Built-in alarm monitoring
- OEM versions for specialised data and other applications
- PS500 series power supply available for DC (24V/48V) or AC (110/220/240V) operation

Best-in-class wireless solutions



KF510 series specifications

| General | | | | | |
|---|--|--------------------------------------|--|--|--|
| Frequency Range | 30 MHz Band | 80 MHz Band | 150 MHz Band | 200 MHz Band | 400 MHz Band |
| | A band:29.5-35 MHz B band:35-42 MHz C band:42-50 MHz | A band:66-78 MHz B band:74-88 MHz | A band:136-156 MHz B band:150-174 MHz | A band:176-210 MHz B band:200-230 MHz C band:225-255 MHz D band:250-280 MHz | SA band:300-335 MHz A band:335-370 MHz B band:365-400 MHz C band:400-435 MHz DS band:420-455MHz D band:440-475MHz E band:465-500MHz F band:485-520MHz |
| Number of channels | 99 channels with name, selectable from the front panel, 128 channels accessible at rear connector | | | | |
| Channel spacing | 12.5, 20, 25 or 30kHz programmable | | | | |
| Mode of operation | Full duplex, semi-duplex or simplex | | | | |
| Modulation mode | FM (F3E) | | | | |
| Antenna impedance | 50 Ohms unbalanced | | | | |
| Power supply | 13.6V DC, negative ground, 12A at 50W transmitter output. 24/48 VDC, 110/220/240 VAC with optional PS500 series power supply unit | | | | |
| Environmental conditions | Operating temperature -30°C to +60°C Relative humidity 95% at 35°C | | | | |
| Frequency stability | +/- 1 kHz | | | | |
| Dimensions and weight | 482mm wide x 88mm high x 380mm deep 11kg weight | | | | |
| Approval specifications | ETS 300 086, ETS 300 113 | | | | |
| Signaling options | 5 tone, CTCSS, DCS, DTMF, MPT1327 Integral trunked system controller | | | | |
| Display | LCD dot matrix display (4 lines of 21 characters) | | | | |
| Transmitter | | | | | |
| RF power output | 1 to 50W | | | | |
| Maximum frequency deviation | Wide band +/-5 kHz Narrow band +/-2.5 kHz | | | | |
| Spurious and harmonics | Less than 0.25µW | | | | |
| Frequency response | Within +/-3dB of 6dB/octave pre-emphasis from 0.3 to 3 kHz, 1 kHz reference | | | | |
| Signal to noise ratio | Wide band: 50dB at 1 kHz, 70% modulation Narrow band: 45dB at 1 kHz, 70% modulation | | | | |
| Modulation distortion | Less than 3% at 1 kHz, 70% modulation | | | | |
| 600 Ohm line input | -30 to +10dBm | | | | |
| Receiver | | | | | |
| Sensitivity | Less than 0.4µV pd for 20dB noise quieting Less than 0.3µV pd for 12dB SINAD | | | | |
| Squelch sensitivity | Less than 0.25µV | | | | |
| Selectivity | More than 70dB at 25kHz point | | | | |
| Audio distortion | Less than 6% at 1 kHz, 70% modulation | | | | |
| 600 Ohm line output | -30 to +10dBm | | | | |
| Blocking attenuation | More than 90dB | | | | |
| Intermodulation attenuation | More than 70dB | | | | |
| Spurious response attenuation | More than 70dB | | | | |
| Signal to noise ratio | Wide band: more than 50dB at 1kHz, 70% modulation Narrow band: more than 45dB at 1kHz 70% modulation | | | | |
| These typical specifications have been prepared for worldwide markets and cover different models within the KF510 series. Due to constant technological developments and changes, Key Radio Systems Ltd reserves the right to vary these specifications without notice. | | | | | |



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