

KENWOOD

Listen to the Future



TKR-7400P/8400P

VHF/UHF P25 Conventional Repeater Systems



The TKR-7400P/8400P VHF & UHF P25 Conventional repeater systems are comprised of the Kenwood high performance TKR-740/840 transceiver units and a KSGCP401 P25 Controller. The KSGCP401 supports up to four conventional P25 channels and operates dual mode delivering full-featured P25 digital communications and continued service to analog fleets.

GENERAL FEATURES

- 146-162 MHz
- 450-480 MHz
- 40W, 110W, 250W VHF Systems
- 40W, 100W, 250W UHF Systems
- Repeater Operation
- Continuous Duty Cycle
- Forced Air Cooling
- Power Supply / Distribution Options
- Battery Backup Options
- Cabinet / Rack Mounting Options
- Duplexer / Combiner Options

KSGCP401 P25 CONTROLLER

- Controls Up to Four TKR-740/840 Units¹
- P25 FDMA Common Air Interface
- Dual Mode Analog & P25 Conventional
- P25 Individual, Group & System Calls
- P25 Emergency Calls
- Single-Site Conventional
- Site Management Ethernet Port
- P25 System Status Monitor/Control
- 19-Inch Rack Mount Height (1RU)



Specifications

Model	KSGCP401
GENERAL	
Digital Protocol	P25 Common Air Interface *1
Analog Protocol	Regency FM QT/DQT Encode /Decode
Mode	P25 Conventional Mode / P25 Conventional & Analog Dual Mode
Operating Voltage	13.8 V DC $\pm 15\%$
Channel Card	Up to 4 channel Control *2
Dimensions	19W x 1.75H x 13.5D inch (483 x 44 x 343 mm)

*1 TIA102.BAAA P25 Common Air Interface & TIA102.BAAB P25 Common Air Interface Conformance Test
 *2. Channel Card must be ordered Separately

Specifications

Model	TKR-7400P	TKR-8400P
GENERAL		
Frequency Range		
Type 1	146-162 MHz	450-480 MHz
Number of Channels	1 (32 preset)	
Channel Spacing	12.5kHz (PLL step 2.5/5/6.25 kHz)	12.5kHz (PLL step: 5/6.25 kHz)
Current Drain (TKR-740/840)		
Standby	Less than 1.0 A	
Receive	Less than 1.5 A	
Transmit/Receive	Less than 3.5 A	
Duty Cycle	Receive: 100%, Transmit: 100%	
Frequency Stability	$\pm 0.00015\%$	
Operating Voltage	13.8 V DC $\pm 15\%$	
Operating Temperature Range	-22 °F ~ +140 °F (-30 °C ~ +60 °C)	
Dimensions (TKR-740/840)	19W x 1.75H x 12D inch (483 x 44 x 305 mm)	
Weight (Net) (TKR-740/840)	8.8 lbs. (4kg)	

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

Analog measurements made per TIA 603
 Digital measurements made per TIA 102CAAA
 The P25 Logo is used under license and is a registered trademark of the Project 25 Technology Interest Group.

Model	TKR-7400P	TKR-8400P
RECEIVER		
Sensitivity		
Digital (5% BER)		0.33 μ V
Analog Narrow (12 db SINAD)		0.3 μ V
Selectivity		
Digital		60 dB
Analog Narrow	87 dB	82 dB
Intermodulation Distortion	85 dB	80 dB
Spurious Response		100 dB
RF Input Impedance		50 Ω
TRANSMITTER		
RF Power Output	Depending on configuration	
RF Output Impedance		50 Ω
Type of Emission	11K0F3E, 8K10F1E, 8K10F1D	
Spurious & Harmonics		70 dB
FM Noise (EIA) Narrow		50 dB
Audio Distortion	Less than 0.5% @ 1000 Hz	Less than 1% @ 1000 Hz

Footnote from front:

*1. The KSGCP401 comes with one P25 option module installed for one TKR-840 RF channel. Each additional channel requires an option module installed (four max.). Each TKR-840 transceiver requires Kenwood-installed KSGCP401 interface preparations.

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.

KENWOOD

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