VRS7000 SERIES CROSS–BAND VEHICULAR REPEATER

700 MHz, 800 MHz, 700/800 MHz

The P25 Vehicular Repeater is a public safety mobile radio system that embeds either an XG-75M single-band or Unity® XG-100P multi-band mobile, providing P25 digital trunked or conventional communications. In addition to performing all of Harris' mobile radio functions, the repeater provides network extension to portable radios that cannot directly connect to the P25 network.

EXTENDED COVERAGE FOR ENHANCED CRITICAL COMMUNICATIONS

EXTENDED COVERAGE

A portable that has moved out of range of the network can be connected to the Vehicular Repeater and normal call traffic can be established across the repeater to the network via the embedded high-power mobile radio.

In addition to supporting up to 64 users and up to 64 groups, the P25 Vehicular Repeater allows the following P25 functions across the RF links:

- Portable Unit Identifiers
- P25 Group Calls
- P25 Individual Calls
- P25 Emergency
- P25 System All Call from the network
- P25 System Grant and Call Queued Tones
- Call Grant and Call Queued Tones
- Request-to-Talk and Emergency Request-to-Talk

SCENE OF INCIDENT

The Scene-of-Incident (SOI) mode enables nearby P25 radios operating on the Vehicular Repeater frequency channel the ability to communicate with each other using the VRS7000 as a base station. Although this mode does not include a connection to the P25 network, the following functions are provided:

- P25 Group Calls
- P25 Individual Calls
- P25 Emergency
- Call Grant and Call Queued Tones

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GENERAL SPECIFICATIONS

Dimensions (H x W x D):
Repeater (VRB) only
8 x 8 x 9 in.
(203 x 203 x 229 mm)

Ambient Temperature Range:
-22 to +140°F (-30 to +60°C)

Storage Temperature Range:
-40 to +185°F (-40 to +85°C)

Input Voltage:
13.8 ± 10% VDC

Input Current:
4A Rx mode
15A Tx mode at full power

For full specifications on the mobile radio unit, refer to the Unity XG-100M or XG-75M data sheet

TRANSMITTER

	VRS7010	VRS7020	VRS7030
Frequency Band (MHz):	700	800	700/800
Tx Frequency Range (MHz):	764-767, 769-771	856-869	764-776, 851-869
Rx Frequency Range (MHz):	794-797, 799-801	811-825	794-825
Rx to Tx Frequency Offset (MHz):	30	45	30 (700 MHz) 45 (800 MHz)
Channel Spacing (kHz):	12.5	12.5	12.5
Transmit Output Power (Configurable Range) (W):	0.25 to 4	0.25 to 4	0.25 to 4

ENVIRONMENTAL SPECIFICATIONS

Standard	Parameter	Methods & Procedures
MIL-STD-810E*	Low Pressure	500.3 PI, PII
	High Temperature	501.3 PI, PII
	Low Temperature	502.3 PI, PII
	Temperature Shock	503.3 PI
	Solar Radiation	505.3 PII
	Blowing Rain	506.3 PI
	Humidity	507.3 PII
	Salt Fog	509.3 PI
	Blowing Dust	510.3 PI
	Min Integrity Vibration	514.4 PI, Cat. 10
	Functional/Basic Shock	516.4 PI
	Transit Drop	516.4 PII
TIA/EIA-603-A	Vibration Stability	Par 2.3.4 & 4.3.4
	Shock Stability	Par 2.3.5 & 3.3.5
U.S. Forest Service	Vibration Stability	Par 7.15

*Also meets equivalent superseded MIL-STD-810C and -D.

REGULATORY DATA

Vehicular Repeater Model Number	Frequency Range (MHz)	RF Output (W)	Frequency Stability (ppm)	FCC Type Acceptance Number	Applicable FCC Rules	Industry Canada Certification Number	Applicable Industry Canada Rules
VRBS7010	764-767 769-771	4	1.5	OWDTR-0058-E	90	3636B-0058 single	RSS-119
VRBS7020	856-869	4	1.5	OWDTR-0058-E	90	3636B-0058 single	RSS-119
VRBS7030	764-776 851-869	4	1.5	OWDTR-0058-E	90	3636B-0058 single	RSS-119

Technical specifications are subject to change without notice. Product sales are subject to applicable U.S. export control laws.

About Harris Corporation

Harris Corporation is a leading technology innovator that creates mission-critical solutions that connect, inform and protect the world. The company's advanced technology provides information and insight to customers operating in demanding environments from ocean to orbit and everywhere in between. Harris has approximately $8 billion in annual revenue and supports customers in 125 countries through four customer-focused business segments: Communication Systems, Space and Intelligence Systems, Electronic Systems, and Critical Networks.

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