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Data Sheet

August 13, 2026

L3HARRIS

L3Harris VLR-4141PA-001

The L3Harris VLR-4141PA-001 is a VHF/UHF receiver designed for reliable communication in various applications. It offers wideband coverage and is suitable for integration into communication systems where clear and dependable signal reception is critical.



MODEL

L3Harris VLR-4141PA-001

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

VLR-4141PA-001

LISTING

<https://aumictechlabs.com/products/vlr-4141pa-001-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The L3Harris VLR-4141PA-001 is a VHF/UHF receiver designed for reliable signal acquisition in demanding communication environments. It delivers assured reception across extended frequency coverage within the VHF and UHF bands, serving industrial and governmental communication systems where signal integrity is critical. Technical Specifications Receiver Performance Frequency Range: VHF/UHF bands Tuning Bandwidth: Wideband coverage supporting agile frequency hopping and multi-channel access Sensitivity: Optimized for clear reception in challenging RF conditions with minimized signal degradation Selectivity: High rejection of adjacent and unwanted signals Dynamic Range: Wide dynamic range to manage strong interfering signals without performance compromise Intermodulation Distortion: Designed to mitigate intermodulation products in dense signal environments Signal Processing Demodulation: Support for analog and digital demodulation schemes Audio Output: Clean, stable audio output for monitoring and distribution integration Data Handling: Potential data reception

and decoding capability dependent on configuration and firmware Interfaces and Connectivity

Antenna Port: Standard RF connector Power Input: Connectors for stable power supply Control Interface: Serial or parallel interface for remote control and monitoring Audio Output: Standard audio connectors Data Interface: Available for telemetry or digital communication when applicable Physical and Environmental Form Factor: Designed for rack-mount or embedded system integration Operating Temperature: Rated across defined temperature range for deployed systems Storage Temperature: Specified storage temperature limits Humidity: Environmental tolerance for humidity levels Vibration and Shock: Resistance per military or industrial standards Construction: Durable enclosure protecting internal components Power Requirements Input Voltage: Nominal operating voltage with acceptable range Key Features Extensive VHF/UHF frequency coverage High selectivity and wide dynamic range Multi-format demodulation support Integrated remote control capability Environmentally rated construction Typical Applications Military and government communications networks Industrial signal monitoring systems Emergency response and public safety networks Integrated communication infrastructure requiring multi-band reception

Compatibility & Integration The VLR-4141PA-001 integrates into larger communication systems via standard RF, audio, and control interfaces. Remote monitoring and frequency agility support network-wide deployment scenarios.

Features & description

From manufacturer datasheet

Features

- PA LRU of VLR-4141 / VSR-4141 DGPS VHF transmitter

VLR4141PA001 Characteristics / Specifications

PARAMETER	VALUE
Model	VLR-4141PA
Manufacturer	Harris Corporation RF Communications / L3Harris
Instrument Type	VHF Power Amplifier (DGPS Ground Station)
Series	VLR-4141 / VSR-4141
Alias	VLR-4141PA; VLR-4141PA-001; VSR-4141PA-001; Harris VLR-4141PA
Host Transmitter	VLR-4141-001 (LAAS) / VSR-4141-001 (SCAT-1)
FCC ID	AQZ-VSR-4141-001
Frequency Range	112.0 to 117.95 MHz
Rated Average Power	20 W
Peak Envelope Power	47 W (3.7 dB PEP/average on 20 W D8PSK)
Frequency Tolerance	2.0 ppm
Emission Designator	14K0G7D
FCC Rule Part	87
Modulation	differentially encoded 8-PSK (D8PSK)
Pulse Shaping	raised cosine filter, alpha 0.6, in DSP
Data Interface	RS-422 asynchronous serial
Power Control Listing	remote commands set RF power (20 W class) and TDMA slots
TDMA Duty	50% maximum (every other slot)
Message Length Listing	222 bytes maximum class in FCC test
Test Frequencies	112.000, 114.975, and 117.950 MHz
Mate Power Supply	VSR-4141PS-001 / VLR-4141PS-001
Mate Receiver	Harris VSR-4201-001 VHF monitor receiver
Antenna	fix-mounted outdoor permanent structure (FCC grant comment)
Composite Device	PA plus power supply are composite parts of the transmitter
Software Note	VSR vs VLR software differs in waveform, power-level control, and frequency span; hardware is the same per FCC Exhibit 8

PARAMETER	VALUE
RTCA Reference	DO-217 SCAT-1 MASPS physical layer (FAA correspondence)
Form	rack/ground-station PA LRU (confirm outline on the unit)
Connectors	RF, DC, and control on the PA rear (FCC external photos)
Duty	ground-station broadcast within 20 W average / 50% TDMA Notes Specs from FCC ID AQZ-VSR-4141-001 grant and operational/test exhibits (112-117.95 MHz, 20 W average, 14K0G7D, 2 ppm) and FAA PEP letter (47 W). Confirm VLR vs VSR software load and that this LRU is the PA, not the PS-001 supply.

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
Specifications	
PARAMETER	VALUE
Model	VLR-4141PA
Manufacturer	Harris Corporation RF Communications / L3Harris
Instrument Type	VHF Power Amplifier (DGPS Ground Station)
Specifications	
PARAMETER	VALUE
Series	VLR-4141 / VSR-4141
Alias	VLR-4141PA; VLR-4141PA-001; VSR-4141PA-001; Harris VLR-4141PA
Host Transmitter	VLR-4141-001 (LAAS) / VSR-4141-001 (SCAT-1)
Specifications	
PARAMETER	VALUE
FCC ID	AQZ-VSR-4141-001
Frequency Range	112.0 to 117.95 MHz
Rated Average Power	20 W
Specifications	
PARAMETER	VALUE
Peak Envelope Power	47 W (3.7 dB PEP/average on 20 W D8PSK)
Frequency Tolerance	2.0 ppm
Emission Designator	14K0G7D
Specifications	
PARAMETER	VALUE
FCC Rule Part	87
Modulation	differentially encoded 8-PSK (D8PSK)
Pulse Shaping	raised cosine filter, alpha 0.6, in DSP

Specifications

PARAMETER	VALUE
Data Interface	RS-422 asynchronous serial
Power Control Listing	remote commands set RF power (20 W class) and TDMA slots
TDMA Duty	50% maximum (every other slot)

Specifications

PARAMETER	VALUE
Message Length Listing	222 bytes maximum class in FCC test
Test Frequencies	112.000, 114.975, and 117.950 MHz
Mate Power Supply	VSR-4141PS-001 / VLR-4141PS-001

Specifications

PARAMETER	VALUE
Mate Receiver	Harris VSR-4201-001 VHF monitor receiver
Antenna	fix-mounted outdoor permanent structure (FCC grant comment)
Composite Device	PA plus power supply are composite parts of the transmitter

Specifications

PARAMETER	VALUE
Software Note	VSR vs VLR software differs in waveform, power-level control, and frequency span; hardware is the same per FCC Exhibit 8
RTCA Reference	D0-217 SCAT-1 MASPS physical layer (FAA correspondence)
Form	rack/ground-station PA LRU (confirm outline on the unit)

Connectors: RF, DC, and control on the PA rear (FCC external photos)

Duty: ground-station broadcast within 20 W average / 50% TDMA

Notes

Specs from FCC ID AQZ-VSR-4141-001 grant and operational/test exhibits (112-117.95 MHz, 20 W average, 14K0G7D, 2 ppm) and FAA PEP letter (47 W). Confirm VLR vs VSR software load and that this LRU is the PA, not the PS-001 supply.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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NIST-traceable calibration · SAM registered ·
30-day returns
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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.