

# V-IPLink

## Multi-mode Video Content Transmission Platform



V-IPLink is the next-generation, ATSC 3.0-ready digital microwave system. This IP-centric solution is specifically designed to meet broadcasters' studio-to-transmitter requirements.

The 2RU chassis combines sleek design with the reliable performance of a modern broadcast microwave system.

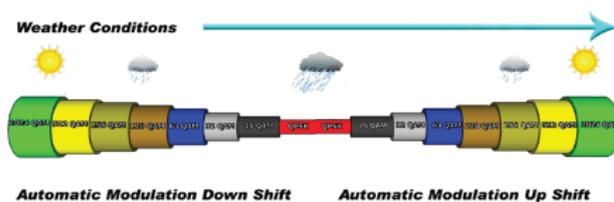
The streamlined physical design features integrated TX/RX transceivers within a single enclosure, complemented by front-panel touchscreen display for monitoring critical performance metrics and alarms. This modular platform offers a highly adaptable and configurable solution, tailored to meet a wide range of customer requirements.

The system delivers enhanced RF gain performance through improvements in linearization and LDPC forward error correction (FEC) which reduces the incidence of packet loss over long or unreliable transmission paths.

V-IPLink offers increased data throughput by utilizing modulation architectures up to 1024QAM and XPIC (cross-polarization interference cancellation). XPIC is a spectrally-efficient technique that doubles data rates by simultaneously operating on both horizontal and vertical polarizations using the same channel frequency. XPIC is highly beneficial when only one channel frequency per path is available.

V-IPLink harness the power of ACM (Adaptive Coding Modulation), enabling dynamic adjustments to the modulation scheme, optimizing the transmission system based on prevailing path conditions, and maximizing the transported bit rate.

V-IPLink is available in both protected (1+1, hot-standby) and non-protected duplex configurations and can be designed for simplex operation, including spatial diversity receive systems.



The Constellation Order will be selected on MER analysis and the highest and lowest are user selectable.

## Key Features

All-indoor, space-efficient 2RU x 19" (48cm) rack mount

Ultra-high linearity broadband RF power amplifiers

Exceptional system gain performance

High capacity ASI & Gigabit Ethernet IP data transport

Automatic transmitter power control

Adaptive code modulation (ACM)

User selectable asymmetrical modulations from QPSK to 1024QAM

XPIC cross-polarization interference cancellation

ANSI and ETSI channel bandwidths selections

Intuitive web-based GUI for remote

## Typical Applications

Studio-to-Transmitter Links (STL)

Transmitter-to-Studio Links (TSL)

Inter-city Relay Backhaul (ICR)

Multi-hop Microwave Relay Systems

High capacity IP Microwave Systems

Ideal for ATSC1.0/3.0 Lighthouse applications

Technical Specifications	
<b>RF Parameters</b>	
Frequency Bands	<ul style="list-style-type: none"> <li>• 1.9-2.7GHz</li> <li>• 3.7-4.2GHz</li> <li>• 4.4-4.9GHz</li> <li>• 5.2-5.9GHz</li> <li>• 5.9-6.4GHz</li> <li>• 6.4-7.2GHz</li> <li>• 6.8-7.4GHz</li> <li>• 7.1-7.9Ghz</li> <li>• 7.7-8.5GHz</li> <li>• 10-10.7GHz</li> <li>• 11.7-12.4GHz</li> <li>• 12.7-13.3GHz</li> <li>• 14.25-14.5GHz</li> <li>• 18GHz</li> <li>• 23GHz</li> </ul>
RF Output Level - Single Carrier	<ul style="list-style-type: none"> <li>• +39 dBm QPSK Modulation (3-14.5GHz)</li> <li>• +33 dBm QAM Modulation (3-14.5GHz)</li> <li>• +36 dBm QPSK Modulation (2GHz)</li> <li>• +33 dBm QAM Modulation (2GHz)</li> </ul>
RF Output Level - COFDM	<ul style="list-style-type: none"> <li>• +27.5 dBm (3-14.5GHz)</li> <li>• +32.5 dBm (2GHz)</li> </ul>
<b>Data Transport Parameters</b>	
Modulations	QPSK, 16QAM, 64QAM, 128QAM, 256QAM, 512QAM, 1024QAM
Throughput Capacity	<ul style="list-style-type: none"> <li>• 15 - 452 Mbps</li> <li>• Automatic Transmitter Power Control (ATPC)</li> <li>• Adaptive Code Modulation ACM(hitless Oms)</li> </ul>



# V-IPLink Datasheet



<b>Output Interface</b>	
ODU Output Interface	<ul style="list-style-type: none"> <li>• N Type Female Connector (2GHz)</li> <li>• N Type Female Connector or Waveguide Flange PDR70 (WR137) (3/4/5/6/7GHz)</li> <li>• Waveguide Flange PDR84 (WR112) (8 GHz)</li> <li>• Waveguide Flange UBR120 (WR75) (10/12/13/14GHz)</li> <li>• Waveguide Flange PBR 220 (WR42) (18/23GHz)</li> </ul>
IDU Output Interface	<ul style="list-style-type: none"> <li>• N Type Female Connector</li> <li>• TNC Femcal Connector</li> <li>• SMPTE 311 Fibre</li> </ul>
<b>Input Interface</b>	
ODU Input Interface	<ul style="list-style-type: none"> <li>• N Type Female Connector</li> <li>• TNC Femcal Connector</li> <li>• SMPTE 311 Fibre</li> </ul>
IDU Input Interface	<ul style="list-style-type: none"> <li>• SFP Module - ASI</li> <li>• SFP Module - ETH (copper or Fibre)</li> </ul>
<b>User Interface Parameters</b>	
Ethernet Port Via SFP	6 Gigabit Eth Ports (RJ45)
XPIC	Optional
STM-1 Port	1
ASI Port Via SFP	4
ASI Packet Size	188/204
Local And Remote Management	1 × 100/1000 Base T (RJ45)
<b>Hot-Standby</b>	
ASI Transmit	2 × 1 DA
ASI Receive	2 × 1 A/B typ 40msec
Ethernet TCP/IP Switch	600-1100msec
System Mangement	1+1 with Space diversity
<b>Power</b>	
AC	110-240VAC
<b>Environmental</b>	
Operational Temp	-33 - +50 Degrees C (ODU) -5 - +45 Degrees C (IDU)
Storage Temp	-40 - +70 Degrees C (ODU)
Humidity	Max 95% non condensing
<b>Mechanical Specification IDU</b>	
Size	330mm x 480mm x 90mm (L x W x H)
Weight	4Kg
<b>Mechanical Specification ODU</b>	
Size	270mm x 150mm x 120mm (L x W x H)
Weight	5Kg

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