



ECLIPSE IDU GE3

ULTRA COMPACT INDOOR UNIT

The Aviat Networks Eclipse™ IDU GE3 16x indoor unit delivers the latest wireless backhaul technology designed for next generation 4G/LTE backhaul needs, in a compact space-saving package.



The Eclipse IDU GE3 16x indoor unit delivers the most advanced features for hybrid and all-IP wireless microwave transport, in a super-compact, space-saving package that includes 256QAM Adaptive Modulation, high port density, packet- synchronization options, advanced QoS and Ethernet OAM.

The IDU GE3 16x is compatible with the Eclipse line of outdoor (ODU300, ODU600) and indoor (IRU600) radio units, with over-the-air interoperability with Aviat Eclipse Packet Node INU/INUe (equipped with RAC 60E/6XE and DAC GE3).

SMALLER, SMARTER AND FASTER IDU FOR THE NETWORK EDGE

By combining hybrid transport with high capacity options, the smaller, faster and smarter IDU GE3 16x is a CAPEX-optimized solution for enhanced packet or hybrid networking. The IDU GE3 16x simplifies migration to all-IP, where up to 16x E1s or DS1s can be commissioned, alongside six ports of Fast or Gigabit traffic, in non-protected, Monitored Hot Standby and Space Diversity protected configurations.

ADAPTIVE CODING AND MODULATION

IDU GE3 16x supports QPSK to 256 QAM Adaptive Coding and Modulation (ACM), and allows selection of operation for either maximum system gain or maximum data throughput. These choices give maximum flexibility to path designers for deploying the links over longer paths, utilizing smaller antennas or for capacities up to 462 Mbits.

ADVANCED CARRIER ETHERNET FEATURES

The IDU GE3 16x supports advanced features supports carrier class Ethernet networking through an integrated Layer 2 Ethernet switch, providing traffic classification into 8 priority queues, QoS traffic priority assignment, VLAN support, IFG and Preamble suppression for improved throughput, and packet synchronization such as ITU-T G.8262 compliant Synchronous Ethernet (SyncE) and transparent support for IEEE 1588-2008 (1588v2).

SUPER COMPACT

The IDU GE3 16x super-compact ½ U rack height chassis can be installed where there are space challenges, such as curbside or roof top cabinets. The IDU GE3 16x has minimal power consumption at less than 30W, significantly less than similarly featured, full sized solutions, to support simpler power and cooling requirements.

ECLIPSE PORTFOLIO ADVANTAGES

Aviat Networks Eclipse delivers advanced technology with an eye on lowering your total cost of ownership. Eclipse provides superior networking features to address cost-optimized mobile backhaul, public, and private networking applications, along with high performance RF and Carrier Ethernet capabilities to improve cost efficiency. Eclipse offers migration flexibility for long term investment protection and high reliability to lower your OPEX.

IDU GE3 KEY FEATURES

- Hybrid transport options- all-Ethernet/IP, native mixed-mode TDM + Ethernet in a single radio channel
- High throughput up to 462 Mbit/s
- Full 256QAM Adaptive Coding and Modulation (ACM), for up to 4x increase in spectrum efficiency
- Carrier Ethernet features, including Sync-E (G.8262), VLANs, and Ethernet OAM
- Compact size (1/2 RU) and very low power consumption
- High density Ethernet interface capability with 6x Gigabit Ethernet ports
- Protected Configurations in 1RU: MHSB, SD, 2+0 (with Link aggregation)
- Fully protected traffic ports: Electrical and optical Ethernet, electrical E1/T1
- Embedded Strong Security, featuring Payload Encryption, Secure Management and RADIUS client support
- Management support by Aviat Provision NMS and Eclipse Portal
- NEBs compliant



SYSTEM PARAMETERS

GENERAL		
Throughput/Capacity Range Options	Airlink Capacity	8 - 366 Mbit/s
	Ethernet/IP	10 - 462 Mbit/s ^[1]
	Native TDM	1 - 16x DS1
Modulation Options	Fixed	QPSK, 16, 32, 64, 128, 256 QAM
	Adaptive	QPSK, 16, 64, 256 QAM
Configuration Options		Non Protected (1+0), Protected Hot Standby (1+1), Protected Space Diversity (1+1)
STANDARDS COMPLIANCE		
EMC		FCC CFR 47, Part 15
Operation		EN 300 019, Class 3.1E
Safety		UL 60950-1
NEBS		GR-63-CORE and GR-1089-CORE ^[2]
ETHERNET TRAFFIC INTERFACE		
Interfaces		4 x 10/100/1000BaseT + 2xSFP (optional, 1000BaseT, LX, SX)
ETHERNET FEATURES		
Ethernet Standards Compliance		IEEE 802.3
Frame Handling	Max Frame Size	up to 10K byte Jumbo Frames
QoS	Traffic Prioritization	Port based, 802.1p VLAN Tags, DCSP and Traffic Class and Flow Level Mapping
	VLAN Tagging	IEEE 802.1Q, QinQ
	Flow Control	IEEE 802.3x
	Monitoring	RMON-1, Port and Channel Status, Performance Graphs
Throughput Acceleration		IFG & preamble suppression
Synchronization		Synchronous Ethernet
TDM TRAFFIC INTERFACE		
Line Interface, electrical		16x 1.544 Mbit/s (DS1), 2 x 50 pin HDR connectors
ENVIRONMENTAL		
Operating Temperature, Guaranteed		23° to +131° F (-5° to +55° C)
ELECTRICAL/MECHANICAL		
Electrical	Input Voltage Range	-40.5 to -60.0 VDC
Power Consumption, nominal		< 30 W
Dimensions		1/2 RU (22mm) x 19in (482mm) x 9.4in (240mm)
Weight		5.3 lb (2.4 kg)
FAULT AND CONFIGURATION MANAGEMENT		
Protocol		SNMP v2c
Local/remote Configuration Tool		Eclipse Portal
Radio Network Management		Aviat Networks ProVision®

All specifications are typical values unless otherwise stated, and are subject to change without notice.

[1] 64 byte frames, physical layer

[2] Compliant with the exception of R10-4 and R10-5, GR-1089 CORE, Issue 6 and R4-34, GR-63-CORE, Issue 4.

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