AVIAT ODU 600

The Aviat ODU 600 is the industry's first universal ODU with Flexible Power Mode (FPM) - providing software defined base or high power modes of operation in a single platform. This unique scalability allows operators to pay for the power they need, when they need it, improving product lifecycle costs that cannot be achieved by using discrete fixed power mode ODUs. The ODU 600 balances both performance and cost optimization for public or private network operators deploying packet and/or TDM services to fixed, nomadic or mobile devices.

HIGHLIGHTS

- Industry's first universal ODU to support software defined base and high power modes in a single ODU with Aviat's unique Flexible Power Mode (FPM) capability
- Highest transmit output power in its class of ODU across multiple frequency bands (6-42 GHz)
- Interoperates with the Eclipse™ ODU300 series to facilitate easy upgrade and evolution
- Compatible with the Eclipse IDU and INU transport and switching platforms
- Compact, power efficient design, with scalability up to 1024 QAM modulation
- Supports concurrent, ACM (Adaptive Coding & Modulation) & XPIC (Cross Pol. Interference Cancellation) operation
- Can be deployed in 1+0 unprotected, 1+1 MHSB (Monitored Hot Standby), 1+1 SD (Space Diversity) and 2+0 XPIC (Cross Pol. Interference Cancellation) configurations

PERFORMANCE & COST OPTIMIZATION USING FLEXIBLE POWER MODE

The Aviat ODU 600 is the first radio to be equipped with Flexible Power Mode (FPM) which delivers software-selectable base or high power modes of operation in the same unit. This allows operators to optimize costs AND performance. With FPM, operators can deploy a standard power radio initially, and upgrade to high power (licensed-based) only when needed, thereby reducing initial CAPEX spending. The inherent economy of a single-box flexible power solution also helps streamline OPEX, with acute benefits for sparing and inventory management. The overall impact is a lower total cost of ownership.

The Aviat ODU 600 delivers best-in-class output transmit power across multiple frequencies, making it a highly attractive and competitive platform that builds on Aviat's ongoing radio innovation leadership. Increased power provides the flexibility to adjust for increased availability, throughput and/or distance. This performance translates directly into reduced antenna sizes, thereby driving down equipment capex and the opex contribution of tower leasing and maintenance.

KEY FEATURES

- Operating frequencies 5, L6/U6, 7/8, 11, 13, 15, 18, 23, 26, 28, 32, 38 and 42 GHz
- High throughput per T/R, per polarization:

  Up to 462 Mbit/s data

  Up to 100xE1 or 2xSTM-1
- Flexible Power Mode (FPM) for software defined base power and high power modes in the same unit
- Transport options- Carrier Ethernet, PDH/SDH/SONET or Hybrid (mixed-mode Carrier Ethernet + PDH/SDH/SONET) in a single radio channel
- Full 256QAM Adaptive Coding and Modulation (ACM) - scalable up to 1024 QAM
- Configurations available: NP, MHSB, MHSB SD, 2+0 XPIC

SYSTEM PARAMETERS

GENERAL						
Frequency Band Options					5, L6/U6, 7, 8, 11, 13, 15, 18, 23, 26, 28, 32, 38, and 42 GHz	
Capacity Range	Airlink Capacity				8 - 366 Mbit/s	
	Ethernet / IP Throughput				8 - 462 Mbit/s	
	Native TDM				4 x E1 - 100 x E1 or 2 x STM-1	
Modulation Options	Fixed/Adaptive				QPSK, 16, 32, 64, 128 and 256 QAM*	
Channel Sizes					7, 13.75/14, 27.5/28/29.65[1], 40 and 55/56 MHz	
Configuration options					NP (1+0), Protected SB (1+1), Protected SB w/SD, XPIC	
CONNECTORS						
IF Cable connector					N-Type	
Antenna port Interface					Direct Antenna Mount	
SYSTEM	**5 GHZ**	**L6/U6 GHZ**	**7/8 GHZ**	**11 GHZ**	**13 GHZ**	**15 GHZ**
Frequency Range, GHz	4.4-5.0	5.925 - 6.425 6.425 - 7.11	7.125 - 7.9 7.725 - 8.5	10.7 - 11.7	12.75 - 13.25	14.4 - 15.35
T-R Spacings supported, MHz	300, 312	252.04 340	150, 154, 161, 168, 175, 196, 245 119, 126, 151.614, 195, 208, 266, 300, 310, 311.32, 305.56, 360	490, 530	266	315, 420, 490, 640, 644, 728
Maximum Tuning Range (dependent upon T-R spacing), MHz	56	56	56/140	165	84	245
SYSTEM	**18 GHZ**	**23 GHZ**	**26 GHZ**	**28 GHZ**	**32 GHZ**	**38 GHZ**
Frequency Range, GHz	17.7 - 19.7	21.2 - 23.632	24.25 - 26.483	27.5 - 29.5	31.8 - 33.4	37.0 - 39.46
T-R Spacings supported, MHz	1010, 1092.5, 1120	1008, 1200, 1232	1008	1008	812	1260
Maximum Tuning Range (dependent upon T-R spacing), MHz	380	370	360	360	370	340
TRANSMITTER SPECIFICATIONS						
Manual Transmitter Power Control range					0 - 25 dB	
Automatic Transmitter Power Control					Configurable over full available manual attenuation range	
Transmitter Mute					> 50 dB	
RECEIVER SPECIFICATIONS						
Frequency Stability					± 5 ppm	
Receiver Overload/Max Receiver Input Level	BER=1x10^{-6}/BER=1x10^{-3}				-15 dBm / 0 dBm	
Residual (Background) Bit Error Rate					10^{-13}	
STANDARDS COMPLIANCE						
Operation					ETS 300-019 -class 4.1	
Safety					IEC / EN 60950	
RF Performance					EN 302 217 parts 1, 2.1 and 2.2	
ENVIRONMENTAL						
Operating Temprature	Guaranteed				-33 to +55°C	
	Extended				-50 to +65°C	
Humidity	Guaranteed				100%	
Altitude	Guaranteed				4500 Meters	
ELECTRICAL AND MECHANICAL						
Power					< 40 Watts	
Size					265 mm x 265 mm x 125 mm	
Weight					5 kg	

[1] 29.65 MHz channel size applies only to L6 and 8 GHz bands

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

*1024QAM-ready, when supported by indoor unit

Aviat NETWORKS

ISO 9001 - ISO 14001 TL9000 BUREAU VERITAS Certification

CE0682 CE0889