



AVIAT ODU 600v2

The Aviat ODU 600v2 is a next generation, universal Outdoor Unit (ODU) for split-mount applications, incorporating latest ASIC technology to combine ultra-small size and weight with smooth evolution to ultra-high capacity by supporting up to 4096QAM and 110/112 MHz channel spacings.

ODU 600v2 is compatible with Aviat Eclipse and CTR indoor platforms, including backwards compatibility with already deployed hardware and software to facilitate easy introduction to existing networks.

Highlights

- Next generation, 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 frequency bands from 6-42 GHz, enabling high performance operation at higher modulations while minimizing antenna diameter and tower loading.
- Future-proof, high capacity support - 4096QAM and 110/112 MHz ready, enabling Gigabit link speeds in a single ODU.
- Interoperable and backwards compatible with the Eclipse and CTR 8000 series indoor units to facilitate easy upgrade and capacity evolution ^[1].
- Over-the air (OTA) compatible with previous Aviat ODU 600 outdoor units to simplify introduction and sparing for existing network deployments ^[1].
- Ultra-compact for low profile installation, lower shipping costs, with integrated handle
- Can be deployed in 1+0 unprotected, 1+1 MHSB (Monitored Hot Standby), 1+1 SD (Space Diversity) and 2+0 (with or without XPIC) configurations.
- Upgrade existing Aviat ODU links using optional adapter kit, without changing the antenna.

[1] Minimum SW version and configuration rules may apply. Please check with Aviat Networks for details.



Key Features

- Operating frequencies L6/U6, 7/8, 10, 11, 13, 15, 18, 23, 26, 28, 32, 38 and 42 GHz;
- High throughput per T/R, per polarization:
 - Airlink Capacity 715 Mbit/s data currently supported, Up to 127xDS1
- Flexible Power Mode (FPM) for software selectable standard or optional high power mode;
- Transport options- Carrier Ethernet, PDH/SDH/SONET or Hybrid (mixed-mode Carrier Ethernet + PDH/SDH/SONET), IP/MPLS, in a single radio channel (dependent on indoor unit);
- Up to 4096QAM, with ACM (dependent on indoor unit/RAC);
- Channel size support from 3.5 to 80 MHz currently, dependent on indoor unit/RAC
- Wide diplexer tuning range to minimize spares holding, simplify ordering and inventory;
- Configurations supported include 1+0 NP, 1+1 MHSB, 1+1 MHSB SD, 2+0, 2+0 XPIC;
- Ultra-compact: 230 x 180 x 75mm, 2.7 L, all frequency bands;

SYSTEM PARAMETERS

GENERAL						
Frequency Band Options						L6/U6, 7, 8, 10, 11, 13, 15, 18, 23, 26, 28, 32, 38, and 42 GHz
Capacity	Airlink Capacity					typically 715 Mbps
	Ethernet / IP Throughput (with IFG/PA Suppression)					typically 940 Mbps
Modulation Options	Fixed/Adaptive					QPSK, 16, 32, 64, 128, 256, 512, 1024, 2048, 4096 QAM
Channel Sizes						3.5, 3.75, 5, 7, 10, 13.75/14, 20, 25, 27.5/28/29.65 ^[1] , 30, 40, 50, 55/56, 60, 80 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	L6/U6 GHz	7/8 GHz	10 GHz	11 GHz	13 GHz	15 GHz
Frequency Range, GHz	5.925 – 6.425 6.425 – 7.11	7.125 – 7.9 7.725 – 8.5	10.15 - 10.68	10.7 - 11.7	12.75 - 13.25	14.4 - 15.35
T-R Spacings supported, MHz	240, 266, (ETSI) 345, 150, 180 (ANSI) 252.04, 340 (ETSI/ ANSI)	161, 168, 196, 154, 245, 151.614, 208, 311.32, 305.56, 266, 119, 126, 195 (ETSI), 150, 160, 175, 300, 360 (ANSI) 310 (ETSI/ANSI)	350, 91 (ETSI) 65 (ETSI/ANSI)	490, 530, 500, 520 (ANSI) 490, 530 (ETSI / ANSI)	266 (ETSI), 225 (ANSI)	315, 322, 420, 490, 644, 728 (ETSI) 475, 640 (ANSI)
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	1008, 1010, 1092.5, 1120, 615, 485 (ETSI), 340 (ANSI), 1560 (ETSI/ANSI)	1008, 1232 (ETSI), 1200 (ANSI)	1008 (ETSI), 855 (ANSI)	1008 (ETSI), 450 (ANSI)	812 (ETSI)	1260, 462 (ETSI), 700, 1000 (ANSI)
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						1x10 ⁻¹³
STANDARD COMPLIANCE						
Operation						EN 300-019-2-4, Class 4.1
Safety						UL/EN/IEC 60950-1, UL/EN/IEC 60950-22
RF Performance						EN 302 217-2, FCC Part 101, NTIA
EMC						EN 301 489-1, EN 301 489-4, FCC Part 15, ICES-003
Electric Power Substations						IEEE 1613, Class 2
ENVIRONMENTAL						
Operating Temperature	Guaranteed					-33 to +55°C
	Extended					-50 to +65°C
Humidity	Guaranteed					100%
Altitude	Guaranteed					4500 Meters
ELECTRICAL AND MECHANICAL						
Power						50W (6-11GHz), 40W (13-42GHz)
Size						230 x 180 x 75mm, 2.7L
Weight						3.5kg

[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.

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