



Technical Specifications

AVIAT ODU 600v2

Used in Conjunction with CTR 8540 & CTR 8300
ANSI

Software 3.7 (ODUv2 mode)

Disclaimer:

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ODU 600v2 General Specifications

General

Frequency Bands	L6/U6, 7/8, 10.5, 11, 13, 15, 18, 23 and 38 GHz	
Modulation and Coding Options	Fixed and Adaptive	QPSK, 16, 32, 64, 128, 256, 512, and 1024QAM
Channel Sizes Supported	3.75, 5, 10, 20, 25, 30, 40, 50, 60 and 80 MHz	
Capacity Range	Airlink Capacity	9 - 436 Mbit/s
Configuration Options	NP(1+0), Protected SB(1+1), Protected SB w/SD, XPIC	

CTR Compatibility

CTR 8540 Radio Access Cards (RACs)	RACx1 and RACx2
Indoor Units (IDUs)	CTR 8300

Electrical and Mechanical

Power	Typical	40 Watts (6-11 GHz), <30W (13-42 GHz)
Size [1]	9" x 7" x 2.5", 2.7L	
	230 mm x 180 mm x 75 mm, 2.7L	
Weight	7.9 lb	
	3.6 kg	

Environmental

Operating Temperature	Guaranteed	-27.4° to +131°F
	Extended	-58° to +149°F ^[2]
Humidity	Guaranteed	100%
Altitude	Guaranteed	14764 ft. (4500 Meters)

Standards Compliance

Operation	EN 300 019-2-4, Class 4.1 (ODU 600, CTR 8380)	
	EN 300 019-2-3, Class 3.1E (CTR 8540, CTR 8311, CTR 8312)	
EMC	FCC CFR 47, Part 15	
Safety	UL 60950-1, UL 60950-22	
RF Performance	FCC CFR 47, Part 101	
Electric Power Substations	IEEE 1613 (CTR 8380, CTR 8312, ODU 600, ODU 600v2)	

Security

Payload Encryption	Compliance	FIPS 197 AES #4620 (CTR 8300)
		AES #4621 (CTR 8540)

Connectors

IF Cable connector	N-Type
Antenna port Interface	Direct Antenna Mount ^[3]

Transmitter Specifications

Transmitter Specifications

Manual Transmitter Power Control Range	0-25 dB	
Automatic Transmitter Power Control	Range	Configurable over the full available manual attenuation range available
Transmitter Mute	> 50 dB	

*[] See notes in last page

Receiver Specifications

Receiver Specifications

Frequency Stability		± 5 ppm
Receiver Overload	BER = 1E-6	-15 dBm
	BER = 1E-3	0 dBm
Residual (Background) Bit Error Rate		Better than 1E-13

*[] See notes in last page

Transmitter Specifications

System

	L6/U6 GHz	7 GHz FCC	7 GHz	8 GHz	10.5 GHz	11 GHz
Frequency Range (GHz)	5.925 - 7.125	6.875-7.125	7.125 - 7.9	7.7 - 8.5	10.5 - 10.68	10.7 - 11.7
TR-Spacings Supported (MHz)	252.04, 340, 345, 150, 180	150	150, 160, 175, 300	300, 310, 360	65	490, 500, 520, 530
Standard	FCC Part 101 SRSP 306.4 & 305.9	FCC Part 74 & 101	SRSP 307.1 NTIA Red Book	SRSP 307.7 NTIA Red Book	FCC Part 101 SRSP 310.5	FCC Part 101 SRSP 310.7
Maximum Tuning Range (Dependent upon T-R Spacing (MHz)	210	92	160	196	30	305

Antenna Interface

Waveguide Type	R70 (WR137)	R70 (WR137)	R84 (WR112)	R84 (WR112)	R100 (WR90)	R100 (WR90)
Flange Type	UDR70	UDR70	UDR84	UDR84	UDR100	UDR100
Mating Flange Type ^[12]	PDR70 or CDR70	PDR70 or CDR70	PDR84 or CDR84	PDR84 or CDR84	PDR100 or CDR100	PDR100 or CDR100

Transmitter Power Output Specifications with High Power Option^[9], in dBm (Nominal)

	L6/U6 GHz	7 GHz FCC	7 GHz	8 GHz	10.5 GHz	11 GHz
QPSK	32.0	32.0	32.0	31.0	27.5	29.5
16QAM	31.5	31.5	31.5	30.0	27.5	29.5
32QAM	31.0	31.0	31.0	29.5	27.0	29.0
64QAM	30.0	30.0	30.0	28.5	27.0	29.0
128QAM	29.5	29.5	29.5	28.0	27.0	29.0
256QAM	28.5	28.5	28.5	27.0	26.5	28.5
512QAM	28.5	28.5	28.5	27.0	26.5	28.5
1024QAM	28.0	28.0	28.0	26.5	26.0	28.0
Minimum Configurable Power Level	12	12	12	11	7.5	9.5

Receiver Specifications

Receiver Threshold BER=1E-6^[8], in dBm (Typical)

	Air Link Capacity	Modulation	L6/U6 GHz	7 GHz FCC	7 GHz	8 GHz	10.5 GHz	11 GHz
3.75 MHz Channel								
ACM / Fixed	4 Mbps	QPSK	-99.75				-95.75	-97.50
ACM / Fixed	10 Mbps	16QAM	-92.00				-88.00	-89.75
ACM / Fixed	12 Mbps	32QAM	-88.75				-84.75	-86.50
ACM / Fixed	15 Mbps	64QAM	-86.25				-82.25	-84.00
ACM / Fixed	17 Mbps	128QAM	-83.75				-79.75	-81.50
ACM / Fixed	19 Mbps	256QAM	-80.75				-76.75	-78.50

*[] See notes in last page

Receiver Specifications

Receiver Thershold BER=1E-6^[8], in dBm (Typical)

Air Link Capacity Modulation			L6/U6 GHz	7 GHz FCC	7 GHz	8 GHz	10.5 GHz	11 GHz
5 MHz Channel								
ACM / Fixed	6 Mbps	QPSK	-98.00	-98.00	-98.00	-98.00	-94.00	-95.75
ACM / Fixed	14 Mbps	16QAM	-90.75	-90.75	-90.75	-90.75	-86.75	-88.50
ACM / Fixed	17 Mbps	32QAM	-87.75	-87.75	-87.75	-87.75	-83.75	-85.50
ACM / Fixed	21 Mbps	64QAM	-85.00	-85.00	-85.00	-85.00	-81.00	-82.75
ACM / Fixed	24 Mbps	128QAM	-82.00	-82.00	-82.00	-82.00	-78.00	-79.75
ACM / Fixed	27 Mbps	256QAM	-79.25	-79.25	-79.25	-79.25	-75.25	-77.00
ACM / Fixed	30 Mbps	512QAM	-76.00	-76.00	-76.00	-76.00	-72.00	-73.75
10 MHz Channel								
ACM / Fixed	12 Mbps	QPSK	-94.75	-94.75	-94.75	-94.75		-92.50
ACM / Fixed	30 Mbps	16QAM	-87.00	-87.00	-87.00	-87.00		-84.75
ACM / Fixed	36 Mbps	32QAM	-84.50	-84.50	-84.50	-84.50		-82.25
ACM / Fixed	45 Mbps	64QAM	-81.50	-81.50	-81.50	-81.50		-79.25
ACM / Fixed	50 Mbps	128QAM	-78.50	-78.50	-78.50	-78.50		-76.25
ACM / Fixed	57 Mbps	256QAM	-75.25	-75.25	-75.25	-75.25		-73.00
ACM / Fixed	66 Mbps	512QAM	-72.00	-72.00	-72.00	-72.00		-69.75
ACM / Fixed	71 Mbps	1024QAM	-69.00	-69.00	-69.00	-69.00		-66.75
20 MHz Channel ^[10]								
ACM / Fixed	26 Mbps	QPSK	-91.75		-91.75	-91.75		-89.50
ACM / Fixed	60 Mbps	16QAM	-84.50		-84.50	-84.50		-82.25
ACM / Fixed	71 Mbps	32QAM	-81.75		-81.75	-81.75		-79.50
ACM / Fixed	88 Mbps	64QAM	-79.25		-79.25	-79.25		-77.00
ACM / Fixed	102 Mbps	128QAM	-76.50		-76.50	-76.50		-74.25
ACM / Fixed	120 Mbps	256QAM	-73.00		-73.00	-73.00		-70.75
ACM / Fixed	139 Mbps	512QAM	-69.25		-69.25	-69.25		-67.00
ACM / Fixed	152 Mbps	1024QAM	-65.75		-65.50	-65.50		-63.25
25 MHz Channel								
ACM / Fixed	33 Mbps	QPSK		-90.50				
ACM / Fixed	75 Mbps	16QAM		-83.75				
ACM / Fixed	90 Mbps	32QAM		-80.75				
ACM / Fixed	110 Mbps	64QAM		-78.25				
ACM / Fixed	129 Mbps	128QAM		-75.50				
ACM / Fixed	152 Mbps	256QAM		-72.00				
ACM / Fixed	175 Mbps	512QAM		-68.50				
ACM / Fixed	192 Mbps	1024QAM		-64.75				
30 MHz Channel								
ACM / Fixed	39 Mbps	QPSK	-89.75		-89.75	-89.75		-87.50
ACM / Fixed	90 Mbps	16QAM	-83.00		-83.00	-83.00		-80.75
ACM / Fixed	108 Mbps	32QAM	-80.00		-80.00	-80.00		-77.75
ACM / Fixed	135 Mbps	64QAM	-77.25		-77.25	-77.25		-75.00
ACM / Fixed	155 Mbps	128QAM	-74.75		-74.75	-74.75		-72.50
ACM / Fixed	180 Mbps	256QAM	-71.50		-71.50	-71.50		-69.25
ACM / Fixed	210 Mbps	512QAM	-67.50		-67.50	-67.50		-65.25
ACM / Fixed	230 Mbps	1024QAM	-64.00		-64.00	-64.00		-61.75
40 MHz Channel								
ACM / Fixed	53 Mbps	QPSK			-88.50	-88.50		-86.25
ACM / Fixed	120 Mbps	16QAM			-81.75	-81.75		-79.50
ACM / Fixed	135 Mbps	32QAM			-79.25	-79.25		-77.00
ACM / Fixed	178 Mbps	64QAM			-76.00	-76.00		-73.75
ACM / Fixed	210 Mbps	128QAM			-73.25	-73.25		-71.00
ACM / Fixed	240 Mbps	256QAM			-70.25	-70.25		-68.00
ACM / Fixed	275 Mbps	512QAM			-66.50	-66.50		-64.25
ACM / Fixed	300 Mbps	1024QAM			-63.00	-63.00		-60.75

*[] See notes in last page

Receiver Specifications

Receiver Thershold BER=1E-6^[8], in dBm (Typical)

	Air Link Capacity	Modulation	L6/U6 GHz	7 GHz FCC	7 GHz	8 GHz	10.5 GHz	11 GHz
50 MHz Channel								
ACM / Fixed	63 Mbps	QPSK			-87.75	-87.75		-85.50
ACM / Fixed	150 Mbps	16QAM			-80.75	-80.75		-78.50
ACM / Fixed	172 Mbps	32QAM			-78.00	-78.00		-75.75
ACM / Fixed	213 Mbps	64QAM			-75.75	-75.75		-73.50
ACM / Fixed	258 Mbps	128QAM			-72.50	-72.50		-70.25
ACM / Fixed	300 Mbps	256QAM			-69.25	-69.25		-67.00
ACM / Fixed	355 Mbps	512QAM			-65.00	-65.00		-62.75
ACM / Fixed	371 Mbps	1024QAM			-62.25	-62.25		-60.00
60 MHz Channel ^[11]								
ACM / Fixed	74 Mbps	QPSK	-87.00					
ACM / Fixed	150 Mbps	16QAM	-81.25					
ACM / Fixed	228 Mbps	32QAM	-76.25					
ACM / Fixed	250 Mbps	64QAM	-75.00					
ACM / Fixed	323 Mbps	128QAM	-71.00					
ACM / Fixed	373 Mbps	256QAM	-67.50					
ACM / Fixed	417 Mbps	512QAM	-64.25					
ACM / Fixed	436 Mbps	1024QAM	-61.25					
80 MHz Channel								
ACM / Fixed	74 Mbps	QPSK						-84.75
ACM / Fixed	150 Mbps	16QAM						-79.00
ACM / Fixed	228 Mbps	32QAM						-74.00
ACM / Fixed	250 Mbps	64QAM						-72.75
ACM / Fixed	323 Mbps	128QAM						-68.75
ACM / Fixed	373 Mbps	256QAM						-65.25
ACM / Fixed	417 Mbps	512QAM						-62.00
ACM / Fixed	436 Mbps	1024QAM						-59.00

*[] See notes in last page

System Gain Specifications

System Gain BER=1E-6,^[8] in dB (Typical)

	Air Link Capacity	Modulation	L6/U6 GHz	7 GHz FCC	7 GHz	8 GHz	10.5 GHz	11 GHz
3.75 MHz Channel								
ACM / Fixed	4 Mbps	QPSK	131.75				123.25	127.0
ACM / Fixed	10 Mbps	16QAM	123.5				115.5	119.25
ACM / Fixed	12 Mbps	32QAM	119.75				111.75	115.5
ACM / Fixed	15 Mbps	64QAM	116.25				109.25	113.0
ACM / Fixed	17 Mbps	128QAM	113.25				106.75	110.5
ACM / Fixed	19 Mbps	256QAM	109.25				103.25	107.0
5 MHz Channel								
ACM / Fixed	6 Mbps	QPSK	130.0	130.0	130.0	129.0	121.5	125.25
ACM / Fixed	14 Mbps	16QAM	122.25	122.25	122.25	120.75	114.25	118.0
ACM / Fixed	17 Mbps	32QAM	118.75	118.75	118.75	117.25	110.75	114.5
ACM / Fixed	21 Mbps	64QAM	115.0	115.0	115.0	113.5	108.0	111.75
ACM / Fixed	24 Mbps	128QAM	111.5	111.5	111.5	110.0	105.0	108.75
ACM / Fixed	27 Mbps	256QAM	107.75	107.75	107.75	106.25	101.75	105.5
ACM / Fixed	30 Mbps	512QAM	104.5	104.5	104.5	103.0	98.5	102.25
10 MHz Channel								
ACM / Fixed	12 Mbps	QPSK	126.75	126.75	126.75	125.75		122.0
ACM / Fixed	30 Mbps	16QAM	118.5	118.5	118.5	117.0		114.25
ACM / Fixed	36 Mbps	32QAM	115.5	115.5	115.5	114.0		111.25
ACM / Fixed	45 Mbps	64QAM	111.5	111.5	111.5	110.0		108.25
ACM / Fixed	50 Mbps	128QAM	108.0	108.0	108.0	106.5		105.25
ACM / Fixed	57 Mbps	256QAM	103.75	103.75	103.75	102.25		101.5
ACM / Fixed	66 Mbps	512QAM	100.5	100.5	100.5	99.0		98.25
ACM / Fixed	71 Mbps	1024QAM	97.0	97.0	97.0	95.5		94.75
20 MHz Channel^[10]								
ACM / Fixed	26 Mbps	QPSK	123.75		123.75	122.75		119.0
ACM / Fixed	60 Mbps	16QAM	116.0		116.0	114.5		111.75
ACM / Fixed	71 Mbps	32QAM	112.75		112.75	111.25		108.5
ACM / Fixed	88 Mbps	64QAM	109.25		109.25	107.75		106.0
ACM / Fixed	102 Mbps	128QAM	106.0		106.0	104.5		103.25
ACM / Fixed	120 Mbps	256QAM	101.5		101.5	100.0		99.25
ACM / Fixed	139 Mbps	512QAM	97.75		97.75	96.25		95.5
ACM / Fixed	152 Mbps	1024QAM	93.75		93.5	92.0		91.25
25 MHz Channel								
ACM / Fixed	33 Mbps	QPSK		122.5				
ACM / Fixed	75 Mbps	16QAM		115.25				
ACM / Fixed	90 Mbps	32QAM		111.75				
ACM / Fixed	110 Mbps	64QAM		108.25				
ACM / Fixed	129 Mbps	128QAM		105.0				
ACM / Fixed	152 Mbps	256QAM		100.5				
ACM / Fixed	175 Mbps	512QAM		97.0				
ACM / Fixed	192 Mbps	1024QAM		92.75				
30 MHz Channel								
ACM / Fixed	39 Mbps	QPSK	121.75		121.75	120.75		117.0
ACM / Fixed	90 Mbps	16QAM	114.5		114.5	113.0		110.25
ACM / Fixed	108 Mbps	32QAM	111.0		111.0	109.5		106.75
ACM / Fixed	135 Mbps	64QAM	107.25		107.25	105.75		104.0
ACM / Fixed	155 Mbps	128QAM	104.25		104.25	102.75		101.5
ACM / Fixed	180 Mbps	256QAM	100.0		100.0	98.5		97.75
ACM / Fixed	210 Mbps	512QAM	96.0		96.0	94.5		93.75
ACM / Fixed	230 Mbps	1024QAM	92.0		92.0	90.5		89.75

*[] See notes in last page

System Gain Specifications

System Gain BER=1E-6,^[8] in dB (Typical)

	Air Link Capacity	Modulation	L6/U6 GHz	7 GHz FCC	7 GHz	8 GHz	10.5 GHz	11 GHz
40 MHz Channel								
ACM / Fixed	53 Mbps	QPSK			120.5	119.5		115.75
ACM / Fixed	120 Mbps	16QAM			113.25	111.75		109.0
ACM / Fixed	135 Mbps	32QAM			110.25	108.75		106.0
ACM / Fixed	178 Mbps	64QAM			106.0	104.5		102.75
ACM / Fixed	210 Mbps	128QAM			102.75	101.25		100.0
ACM / Fixed	240 Mbps	256QAM			98.75	97.25		96.5
ACM / Fixed	275 Mbps	512QAM			95.0	93.5		92.75
ACM / Fixed	300 Mbps	1024QAM			91.0	89.5		88.75
50 MHz Channel								
ACM / Fixed	63 Mbps	QPSK			119.75	118.75		115.0
ACM / Fixed	150 Mbps	16QAM			112.25	110.75		108.0
ACM / Fixed	172 Mbps	32QAM			109.0	107.5		104.75
ACM / Fixed	213 Mbps	64QAM			105.75	104.25		102.5
ACM / Fixed	258 Mbps	128QAM			102.0	100.5		99.25
ACM / Fixed	300 Mbps	256QAM			97.75	96.25		95.5
ACM / Fixed	355 Mbps	512QAM			93.5	92.0		91.25
ACM / Fixed	371 Mbps	1024QAM			90.25	88.75		88.0
60 MHz Channel ^[11]								
ACM / Fixed	74 Mbps	QPSK	119.0					
ACM / Fixed	150 Mbps	16QAM	112.75					
ACM / Fixed	228 Mbps	32QAM	107.25					
ACM / Fixed	250 Mbps	64QAM	105.0					
ACM / Fixed	323 Mbps	128QAM	100.5					
ACM / Fixed	373 Mbps	256QAM	96.0					
ACM / Fixed	417 Mbps	512QAM	92.75					
ACM / Fixed	436 Mbps	1024QAM	89.25					
80 MHz Channel								
ACM / Fixed	74 Mbps	QPSK						114.25
ACM / Fixed	150 Mbps	16QAM						108.5
ACM / Fixed	228 Mbps	32QAM						103.0
ACM / Fixed	250 Mbps	64QAM						101.75
ACM / Fixed	323 Mbps	128QAM						97.75
ACM / Fixed	373 Mbps	256QAM						93.75
ACM / Fixed	417 Mbps	512QAM						90.5
ACM / Fixed	436 Mbps	1024QAM						87.0

*[] See notes in last page

Transmitter Specifications

System

	13 GHz	15 GHz	18 GHz	23 GHz	38 GHz
Frequency Range (GHz)	12.70 - 13.15	14.4 - 15.35	17.7 - 19.7	21.2 - 23.6	38.6 - 40.0
TR-Spacings Supported (MHz)	225	475, 640	1560, 340	1200, 1232	700
Standard	Part 74 & 101	SRSP 314.5 NTIA Red Book	FCC Part 101 SRSP 317.8	FCC Part 101 SRSP 321.8	FCC Part 101 SRSP 338.6
Maximum Tuning Range (Dependent upon T-R Spacing (MHz)	125	261	440	616	350
Flange Type	UBR140	UBR140	UBR220	UBR220	UBR320

Antenna Interface

Waveguide Type	R140 (WR62)	R140 (WR62)	R220 (WR42)	R220 (WR42)	R320 (WR28)
Flange Type	UBR140	UBR140	UBR220	UBR220	UBR320
Mating Flange Type	PBR140 or CDR140	PBR140 or CBR140	PBR220	PBR220	PBR320

Transmitter Power Output Specifications with High Power Option^[9], in dBm (Typical)

	13 GHz	15 GHz	18 GHz	23 GHz	38 GHz
QPSK	26.5	26.5	23.0	23.5	20.5
16QAM	25.5	25.5	22.0	22.5	18.5
32QAM	24.5	24.5	21.0	21.5	18.0
64QAM	24.5	24.5	21.0	21.5	18.0
128QAM	24.5	24.5	21.0	21.5	17.5
256QAM	23.5	23.5	20.0	20.5	16.5
512QAM	22.0	22.0	18.5	19.0	16.5
1024QAM	21.5	21.5	18.0	18.5	16.0
Minimum Configurable Power Level	6.5	6.5	3	3.5	0.5

Receiver Specifications

Receiver Threshold BER=1E-6^[8], in dBm (Typical)

	Air Link Capacity	Modulation	13 GHz	15 GHz	18 GHz	23 GHz	38 GHz
3.75 MHz Channel							
ACM / Fixed	4 Mbps	QPSK					
ACM / Fixed	10 Mbps	16QAM					
ACM / Fixed	12 Mbps	32QAM					
ACM / Fixed	15 Mbps	64QAM					
ACM / Fixed	17 Mbps	128QAM					
ACM / Fixed	19 Mbps	256QAM					
5 MHz Channel							
ACM / Fixed	6 Mbps	QPSK	-95.50	-95.00	-95.00	-95.00	
ACM / Fixed	14 Mbps	16QAM	-88.25	-87.75	-87.75	-87.75	
ACM / Fixed	17 Mbps	32QAM	-85.25	-84.75	-84.75	-84.75	
ACM / Fixed	21 Mbps	64QAM	-82.50	-82.00	-82.00	-82.00	
ACM / Fixed	24 Mbps	128QAM	-79.50	-79.00	-79.00	-79.00	
ACM / Fixed	27 Mbps	256QAM	-76.75	-76.25	-76.25	-76.25	
ACM / Fixed	30 Mbps	512QAM	-73.50	-73.00	-73.00	-73.00	

*[] See notes in last page

Receiver Specifications

Receiver Threshold BER=1E-6^[8], in dBm (Typical)

Air Link Capacity		Modulation	13 GHz	15 GHz	18 GHz	23 GHz	38 GHz
10 MHz Channel							
ACM / Fixed	12 Mbps	QPSK	-92.25	-91.75	-91.75	-91.75	-86.75
ACM / Fixed	30 Mbps	16QAM	-84.50	-84.00	-84.00	-84.00	-79.00
ACM / Fixed	36 Mbps	32QAM	-82.00	-81.50	-81.50	-81.50	-76.50
ACM / Fixed	45 Mbps	64QAM	-79.00	-78.50	-78.50	-78.50	-73.50
ACM / Fixed	50 Mbps	128QAM	-76.00	-75.50	-75.50	-75.50	-70.50
ACM / Fixed	57 Mbps	256QAM	-72.75	-72.25	-72.25	-72.25	-67.25
ACM / Fixed	66 Mbps	512QAM	-69.50	-69.00	-69.00	-69.00	-64.00
ACM / Fixed	71 Mbps	1024QAM	-66.50	-66.00	-66.00	-66.00	-61.00
20 MHz Channel							
ACM / Fixed	26 Mbps	QPSK		-88.75	-88.75	-88.75	
ACM / Fixed	60 Mbps	16QAM		-81.50	-81.50	-81.50	
ACM / Fixed	71 Mbps	32QAM		-78.75	-78.75	-78.75	
ACM / Fixed	88 Mbps	64QAM		-76.25	-76.25	-76.25	
ACM / Fixed	102 Mbps	128QAM		-73.50	-73.50	-73.50	
ACM / Fixed	120 Mbps	256QAM		-70.00	-70.00	-70.00	
ACM / Fixed	139 Mbps	512QAM		-66.25	-66.25	-66.25	
ACM / Fixed	152 Mbps	1024QAM		-62.25	-62.25	-62.25	
25 MHz Channel							
ACM / Fixed	33 Mbps	QPSK	-88.00				
ACM / Fixed	75 Mbps	16QAM	-81.25				
ACM / Fixed	90 Mbps	32QAM	-78.25				
ACM / Fixed	110 Mbps	64QAM	-75.75				
ACM / Fixed	129 Mbps	128QAM	-73.00				
ACM / Fixed	152 Mbps	256QAM	-69.50				
ACM / Fixed	175 Mbps	512QAM	-65.75				
ACM / Fixed	192 Mbps	1024QAM	-62.00				
27.5 / 28 MHz Channel							
ACM / Fixed	38 Mbps	QPSK					
ACM / Fixed	73 Mbps	16QAM					
ACM / Fixed	112 Mbps	32QAM					
ACM / Fixed	121 Mbps	64QAM					
ACM / Fixed	158 Mbps	128QAM					
ACM / Fixed	181 Mbps	256QAM					
ACM / Fixed	203 Mbps	512QAM					
ACM / Fixed	212 Mbps	1024QAM					
30 MHz Channel							
ACM / Fixed	39 Mbps	QPSK		-86.75	-86.75	-86.75	-81.75
ACM / Fixed	90 Mbps	16QAM		-80.00	-80.00	-80.00	-75.00
ACM / Fixed	108 Mbps	32QAM		-77.00	-77.00	-77.00	-72.00
ACM / Fixed	135 Mbps	64QAM		-74.25	-74.25	-74.25	-69.25
ACM / Fixed	155 Mbps	128QAM		-71.50	-71.50	-71.50	-66.50
ACM / Fixed	180 Mbps	256QAM		-68.50	-68.50	-68.50	-63.50
ACM / Fixed	210 Mbps	512QAM		-64.50	-64.50	-64.50	-59.50
ACM / Fixed	230 Mbps	1024QAM		-60.75	-60.75	-60.75	-55.75

*[] See notes in last page

Receiver Specifications

Receiver Threshold BER=1E-6^[8], in dBm (Typical)

			13 GHz	15 GHz	18 GHz	23 GHz	38 GHz
Air Link Capacity		Modulation					
40 MHz Channel							
ACM / Fixed	53 Mbps	QPSK		-85.50	-85.50	-85.50	-80.50
ACM / Fixed	120 Mbps	16QAM		-78.75	-78.75	-78.75	-73.75
ACM / Fixed	135 Mbps	32QAM		-76.25	-76.25	-76.25	-71.25
ACM / Fixed	178 Mbps	64QAM		-73.00	-73.00	-73.00	-68.00
ACM / Fixed	210 Mbps	128QAM		-70.25	-70.25	-70.25	-65.25
ACM / Fixed	240 Mbps	256QAM		-67.00	-67.00	-67.00	-62.00
ACM / Fixed	275 Mbps	512QAM		-63.50	-63.50	-63.50	-58.50
ACM / Fixed	300 Mbps	1024QAM		-59.75	-59.75	-59.75	-54.75
50 MHz Channel							
ACM / Fixed	63 Mbps	QPSK	-85.25	-84.75	-84.75	-84.75	-79.75
ACM / Fixed	150 Mbps	16QAM	-78.25	-77.75	-77.75	-77.75	-72.75
ACM / Fixed	172 Mbps	32QAM	-75.50	-75.00	-75.00	-75.00	-70.00
ACM / Fixed	213 Mbps	64QAM	-73.25	-72.75	-72.75	-72.75	-67.75
ACM / Fixed	258 Mbps	128QAM	-70.00	-69.50	-69.50	-69.50	-64.50
ACM / Fixed	300 Mbps	256QAM	-66.75	-66.25	-66.25	-66.25	-61.25
ACM / Fixed	355 Mbps	512QAM	-62.50	-62.00	-62.00	-62.00	-57.00
ACM / Fixed	371 Mbps	1024QAM	-59.75	-59.25	-59.25	-59.25	-54.25
60 MHz Channel							
ACM / Fixed	74 Mbps	QPSK					
ACM / Fixed	150 Mbps	16QAM					
ACM / Fixed	228 Mbps	32QAM					
ACM / Fixed	250 Mbps	64QAM					
ACM / Fixed	323 Mbps	128QAM					
ACM / Fixed	373 Mbps	256QAM					
ACM / Fixed	417 Mbps	512QAM					
ACM / Fixed	436 Mbps	1024QAM					
80 MHz Channel							
ACM / Fixed	74 Mbps	QPSK			-84.00		
ACM / Fixed	150 Mbps	16QAM			-78.25		
ACM / Fixed	228 Mbps	32QAM			-73.25		
ACM / Fixed	250 Mbps	64QAM			-72.00		
ACM / Fixed	323 Mbps	128QAM			-68.00		
ACM / Fixed	373 Mbps	256QAM			-64.50		
ACM / Fixed	417 Mbps	512QAM			-61.25		
ACM / Fixed	436 Mbps	1024QAM			-58.25		

*[] See notes in last page

System Gain Specifications

System Gain BER=1E-6,^[8] in dB (Typical)

Air Link Capacity			Modulation	13 GHz	15 GHz	18 GHz	23 GHz	38 GHz
3.75 MHz Channel								
ACM / Fixed	4 Mbps		QPSK					
ACM / Fixed	10 Mbps		16QAM					
ACM / Fixed	12 Mbps		32QAM					
ACM / Fixed	15 Mbps		64QAM					
ACM / Fixed	17 Mbps		128QAM					
ACM / Fixed	19 Mbps		256QAM					
5 MHz Channel								
ACM / Fixed	6 Mbps		QPSK	122.0	121.5	118.0	118.5	
ACM / Fixed	14 Mbps		16QAM	113.75	113.25	109.75	110.25	
ACM / Fixed	17 Mbps		32QAM	109.75	109.25	105.75	106.25	
ACM / Fixed	21 Mbps		64QAM	107.0	106.5	103.0	103.5	
ACM / Fixed	24 Mbps		128QAM	104.0	103.5	100.0	100.5	
ACM / Fixed	27 Mbps		256QAM	100.25	99.75	96.25	96.75	
ACM / Fixed	30 Mbps		512QAM	95.5	95.0	91.5	92.0	
10 MHz Channel								
ACM / Fixed	12 Mbps		QPSK	118.75	118.25	114.75	115.25	107.25
ACM / Fixed	30 Mbps		16QAM	110.0	109.5	106.0	106.5	97.5
ACM / Fixed	36 Mbps		32QAM	106.5	106.0	102.5	103.0	94.5
ACM / Fixed	45 Mbps		64QAM	103.5	103.0	99.5	100.0	91.5
ACM / Fixed	50 Mbps		128QAM	100.5	100.0	96.5	97.0	88.0
ACM / Fixed	57 Mbps		256QAM	96.25	95.75	92.25	92.75	83.75
ACM / Fixed	66 Mbps		512QAM	91.5	91.0	87.5	88.0	80.5
ACM / Fixed	71 Mbps		1024QAM	88.0	87.5	84.0	84.5	77.0
20 MHz Channel								
ACM / Fixed	26 Mbps		QPSK		115.25	111.75	112.25	
ACM / Fixed	60 Mbps		16QAM		107.0	103.5	104.0	
ACM / Fixed	71 Mbps		32QAM		103.25	99.75	100.25	
ACM / Fixed	88 Mbps		64QAM		100.75	97.25	97.75	
ACM / Fixed	102 Mbps		128QAM		98.0	94.5	95.0	
ACM / Fixed	120 Mbps		256QAM		93.5	90.0	90.5	
ACM / Fixed	139 Mbps		512QAM		88.25	84.75	85.25	
ACM / Fixed	152 Mbps		1024QAM		83.75	80.25	80.75	
25 MHz Channel								
ACM / Fixed	33 Mbps		QPSK	114.5				
ACM / Fixed	75 Mbps		16QAM	106.75				
ACM / Fixed	90 Mbps		32QAM	102.75				
ACM / Fixed	110 Mbps		64QAM	100.25				
ACM / Fixed	129 Mbps		128QAM	97.5				
ACM / Fixed	152 Mbps		256QAM	93.0				
ACM / Fixed	175 Mbps		512QAM	87.75				
ACM / Fixed	192 Mbps		1024QAM	83.5				
27.5 / 28 MHz Channel								
ACM / Fixed	38 Mbps		QPSK					
ACM / Fixed	73 Mbps		16QAM					
ACM / Fixed	112 Mbps		32QAM					
ACM / Fixed	121 Mbps		64QAM					
ACM / Fixed	158 Mbps		128QAM					
ACM / Fixed	181 Mbps		256QAM					
ACM / Fixed	203 Mbps		512QAM					
ACM / Fixed	212 Mbps		1024QAM					

*[] See notes in last page

System Gain Specifications

System Gain BER=1E-6,^[8] in dB (Typical)

Air Link Capacity			Modulation	13 GHz	15 GHz	18 GHz	23 GHz	38 GHz
30 MHz Channel								
ACM / Fixed	39 Mbps		QPSK		113.25	109.75	110.25	102.25
ACM / Fixed	90 Mbps		16QAM		105.5	102.0	102.5	93.5
ACM / Fixed	108 Mbps		32QAM		101.5	98.0	98.5	90.0
ACM / Fixed	135 Mbps		64QAM		98.75	95.25	95.75	87.25
ACM / Fixed	155 Mbps		128QAM		96.0	92.5	93.0	84.0
ACM / Fixed	180 Mbps		256QAM		92.0	88.5	89.0	80.0
ACM / Fixed	210 Mbps		512QAM		86.5	83.0	83.5	76.0
ACM / Fixed	230 Mbps		1024QAM		82.25	78.75	79.25	71.75
40 MHz Channel								
ACM / Fixed	53 Mbps		QPSK		112.0	108.5	109.0	101.0
ACM / Fixed	120 Mbps		16QAM		104.25	100.75	101.25	92.25
ACM / Fixed	135 Mbps		32QAM		100.75	97.25	97.75	89.25
ACM / Fixed	178 Mbps		64QAM		97.5	94.0	94.5	86.0
ACM / Fixed	210 Mbps		128QAM		94.75	91.25	91.75	82.75
ACM / Fixed	240 Mbps		256QAM		90.5	87.0	87.5	78.5
ACM / Fixed	275 Mbps		512QAM		85.5	82.0	82.5	75.0
ACM / Fixed	300 Mbps		1024QAM		81.25	77.75	78.25	70.75
50 MHz Channel								
ACM / Fixed	63 Mbps		QPSK	111.75	111.25	107.75	108.25	100.25
ACM / Fixed	150 Mbps		16QAM	103.75	103.25	99.75	100.25	91.25
ACM / Fixed	172 Mbps		32QAM	100.0	99.5	96.0	96.5	88.0
ACM / Fixed	213 Mbps		64QAM	97.75	97.25	93.75	94.25	85.75
ACM / Fixed	258 Mbps		128QAM	94.5	94.0	90.5	91.0	82.0
ACM / Fixed	300 Mbps		256QAM	90.25	89.75	86.25	86.75	77.75
ACM / Fixed	355 Mbps		512QAM	84.5	84.0	80.5	81.0	73.5
ACM / Fixed	371 Mbps		1024QAM	81.25	80.75	77.25	77.75	70.25
60 MHz Channel								
ACM / Fixed	74 Mbps		QPSK					
ACM / Fixed	150 Mbps		16QAM					
ACM / Fixed	228 Mbps		32QAM					
ACM / Fixed	250 Mbps		64QAM					
ACM / Fixed	323 Mbps		128QAM					
ACM / Fixed	373 Mbps		256QAM					
ACM / Fixed	417 Mbps		512QAM					
ACM / Fixed	436 Mbps		1024QAM					
80 MHz Channel								
ACM / Fixed	74 Mbps		QPSK			107.0		
ACM / Fixed	150 Mbps		16QAM			100.25		
ACM / Fixed	228 Mbps		32QAM			94.25		
ACM / Fixed	250 Mbps		64QAM			93.0		
ACM / Fixed	323 Mbps		128QAM			89.0		
ACM / Fixed	373 Mbps		256QAM			84.5		
ACM / Fixed	417 Mbps		512QAM			79.75		
ACM / Fixed	436 Mbps		1024QAM			76.25		

*[] See notes in last page

For Guaranteed values (over time and operational range) subtract 2 dB from Power Output, add 2dB to Threshold values. For System Gain guaranteed values (over time and operational range) subtract 4dB from System Gain values.

- [1] Dimensions Exclude ODU handle.
- [2] ATPC is recommended for operation at extended Temperature ranges. Contact Aviat Networks for more details.
- [3] Optional remote mount via flex elliptical waveguide.
- [4] RSSI accuracy applies when there is no potential interferer signal present within +/- 28MHz of the Rx. Frequency.
- [5] L1 throughput will vary based on average packet sizes - 64 & 1518 Byte Min-Max rates shown
- [6] Smaller capacity licenses may be used for lower configured throughputs. These may be upgraded later to enable additional capacity as required.
- [7] The 10 MHz Channel capacity is used for 12.5 MHz Channel capacity in the FCC 7 GHz and 13 GHz bands.
- [8] Rx Threshold values indicated are typically improved by 0.5 dB for BER=10⁻³.
- [9] High Power FPM option specifications shown. For standard power, subtract 3 dB.
- [10] For L6 / U6 GHz band 20 MHz channels are only valid for U6 GHz.
- [11] For L6 / U6 GHz band 60 MHz channels are only valid for L6 GHz.
- [12] For 6-11GHz mating flanges, you need an adaptor to use a flexible connector; it will not fit on the ODU itself.

Disclaimer:

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