AAV780 C-Series

C-Band VSAT Compact
High Power Outdoor Transceiver

Agilis AAV780 C-Series C-Band OHT (One Housing Transceiver) is a compact RF ODU (Outdoor Unit) transceiver for satellite communication. It is designed for voice and data application operating in different modulation formats including BPSK, QPSK, QAM and FM.

Agilis AAV780 OHT is a very compact ODU that comprises of Power Supply, Upconverter, SSPA (Solid State Power Amplifier), Down Converter and low phase noise synthesizers. It has a built-in M&C for remote and local monitoring and control. In addition, Agilis has a wide range of SSPA booster options for higher power applications.

It is suitable for SCPC (Single Channel Per Carrier) or MCPC (Multi-Channel Per Carrier), DAMA (Demand Assigned Multiple Access) and TDMA (Time Division Multiple Access) applications.

Features

- Available for all C-Band frequencies
- Broadband data transmission
- Low cost, compact model
- Easy installation & configuration
- Built-in monitor and control
- Higher power options available
- Very stable OCXO reference oscillator
- Electronically tuneable synthesizer
- Redundancy ready
- Surge protection
- 70 or 140MHz IF interface
- M&C Interface RS232/RS485/Ethernet (HTTP & SNMP)

Enhanced Monitoring and Control

Agilis AAV780 C-OHT offers M&C via RS232/485.
It features full remote M&C through Windows using PC.

These include:
- Tx/Rx level monitoring
- Temperature monitoring
- RF output ON/OFF
- Frequencies selection
- Gain control
- Automatic fault identification & alarm

Reliability

Field proven under harsh environment conditions, Agilis ODUs can withstand temperature ranging from -40ºC to +60ºC with up to 100% humidity.

Quality Assurance

All Agilis ODUs go through intensive active electrical stress screening with performance being monitored during screening.
In addition, all units undergo 100% waterproof test equivalent to IP65 to ensure normal operation during tropical, cold and harsh environment.

Agilis

AAV780 C-Series

C-Band VSAT Compact
High Power Outdoor Transceiver

Technical Specifications

C-Band Frequency Range (GHz)

Frequency	Transmit	LNB (Receive)
Intelsat	5.850 – 6.425	3.625 – 4.200
Full C	5.850 – 6.725	3.400 – 4.200
Insat	6.725 – 7.025	4.500 – 4.800
ST-1/Palapa C	6.425 – 6.725	3.400 – 3.700

Transmit

Power	Output Power (dBm) min (P1dB)	Min Gain (dB)	Typ AC Power Consumption (W)
25W	44	70	144
50W	47	73	300
80W	49	80 (nom)	600
100W	50	80 (nom)	600
150W	51.8	80 (nom)	800
200W	53	80 (nom)	1000

Input Frequency	70 / 140 ±18MHz
Output Frequency	C-Band
Frequency Step Size	500kHz (option 1KHz step size)
IF Input Power Range	-25 to -5dBm (typical)
Gain Flatness for Full BW	±2.0dB max
for 36MHz BW	±1.25dB max
Gain Adjustment	20dB@ 0.5dB steps
Gain Stability (-40°C to + 60°C)	±2.0dB max
Spurious (36MHz BW)	-55dBc max
Inter Modulation	-25dBc @ Relative to combine power of two carriers at 3dB total power backoff from Rated Output power
Phase Noise @ 100Hz offset	-60dBc/Hz
@ 1KHz offset	-73dBc/Hz
@ 10KHz offset	-83dBc/Hz
@ 100KHz offset	-93dBc/Hz
Input / Output VSWR	1.5 : 1 max
IF Input / L-Band input interface	50Ω N-Type Female
RF Output Interface	WR137
Frequency Stability	±0.5ppb/day

Power Supply

Input Voltage (Factory Preset)	90 - 264VAC or 48VDC (optional)
DC Output Voltage to LNB	+15VDC at RF IN Connector

Compliance Standard

IEC 609501-2nd Edition	International Safety Standard for Information Technology Equipment
ETSI EN 301 489-12	Electromagnetic Compatibility and Radio Spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) Standard for radio equipment and services; Part 12: Specific conditions for Very Small Aperture Terminal, Satellite Interactive Earth Stations operated in the frequency ranges between 4GHz and 30GHz in the fixed Satellite Service (FSS)
FCC Class A	Two levels of radiation and conducted emissions Limits for unintentional radiators (FCC Mark)

Environmental

Operating Temperature	-40°C to +60°C
Relative Humidity	Up to 100%

Receive (exclude LNA)

Input Frequency	C-Band
Output Frequency	70 / 140 ±18MHz
Frequency Step Size	500kHz
Gain	
IF	30dB min
L-Band	0dB min
Gain Flatness for Full BW	±2.0dB max
For 36MHz BW	±1.25dB max
Gain Stability (-40°C to +60°C)	±1.0dB max
Spurious	-50dBc max (carrier related) -60dBc max (carrier unrelated)
Intermodulation Product	-27dBc max
Phase Noise @ 100Hz offset	-60dBc/Hz
@ 1KHz offset	-73dBc/Hz
@ 10KHz offset	-83dBc/Hz
@ 100KHz offset	-93dBc/Hz
Input / Output VSWR	1.5 : 1 max
RF Input / IF Output Interface	50Ω N-Type Female
Frequency Stability	±0.5ppb/day
Gain Adjustment	40dB @ 0.5dB step

Monitor & Control

Interface	RS232/485, Ethernet (SNMP & HTTP)

Mechanical

Dimensions	284L x 209W x 213H mm
Weight	12.5kg
Colour	White Powder Coat

Note: All specifications are subject to change without notice.
Rev. 010714

www.agilissatcom.com

For more information, please send enquiry to:

Singapore (Headquarters)
mktg_satcoms@stee.stengg.com

USA
usa_satcoms@stee.stengg.com

Europe
europe_satcoms@stee.stengg.com