

The **Dual4050** is a part of WaveCom's expanding line of digital video products. The Dual4050 is a versatile commercial quality dual IF modulator for digital video applications.

The Dual4050 contains two QAM modulator cards in a 1RU chassis. In addition to front panel control, each Dual4050 chassis is also fully remote controllable via a serial interface or SNMP module.

Utilizing the latest all-digital modulation techniques, the Dual4050 can be configured to produce QPSK, 16, 32, 64, 128 or 256 QAM.

The data may be coded to comply with DVB, DAVIC or DigiCipher II™ standards. The Dual4050 comes standard with a number of data interface standard features, including DVB parallel, DVB synchronous serial, and DVB asynchronous serial interface (ASI coaxial). The Dual4050 is capable of automatically synchronizing to the MPEG sync byte present in the incoming data, or inserting the sync byte at appropriate intervals. This advanced cost-effective modulator offers high performance, flexibility and space efficiency.



Features:

- Standard 44.0 MHz IF output
- Selection of data inputs including DVB parallel/synchronous serial, and DVB-ASI
- DVB, DAVIC (ITU-T J.83 Annex A) and DigiCipher II™ (ITU-T J.83 Annex B) encoding available
- Selectable excess bandwidths of 13%, 15% and 18%
- Internal Power Detector for IF output ensures ease of operation
- Microprocessor control ensures optimum performance
- Non-volatile memory to store operating configuration and to protect against power failures
- High reliability is enhanced by a high level of integration, minimizing interconnections
- Can generate pseudorandom data sequence or CW for test purposes
- High reliability, state-of-the-art design using microstrip MMIC and surface mount technology
- Conservative component derating and 100% burn in help ensure reliable operation
- Low power consumption
- Local control via LCD and 4 soft touch push buttons
- Remote control via RS232/RS485 or optional SNMP
- FLASH program memory for easy software updates
- International internal switching power supply (100 to 240 VAC) or optional -48 VDC power supply
- High reliability fans ensure cool operation for long product life



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SPECIFICATIONS — WAVECom DUAL4050

DUAL QAM MODULATOR

OUTPUT

Output Frequency	44.0 MHz center frequency
Output Level	+25 to +40 dBmV (33dBmV nominal)
Output Impedance	75 ohm
Output Connector	F female
Output Flatness	±0.4 dB (over bandwidth = 0.8 symbol rate)
Group Delay Variation	±50 ns max.
Carrier Frequency Accuracy	100 Hz
Mute Level	-55 dBc
Spurious	-55 dBc, 5 to 750 MHz
Modulation	QPSK, 16, 32, 64, 128, 256 QAM
Symbol Rate	7.1 MS/sec. max.

INPUT

Allowable Input Bit Rate Variation	Corresponding to ±25 kSymb/sec.
Coding	DVB, DAVIC (ITU-T J.83 Annex A) DCII (ITU-T J.83 Annex B)
Input Format	DVB - ASI 188/204 Coaxial DVB - Parallel DVB - Synchronous serial
Data Format	188 or 204 byte MPEG2 Transport Stream
Data Connectors	
ASI	BNC female, 75 ohm
Parallel/Sync Serial	25 socket D subminiature w/female threaded posts

MONITORING AND ALARMS

Clock and Data Activity	LCD reading
IF Output Level	LCD reading
Summary Alarm	Red LED

MISCELLANEOUS

Remote Control Serial Interface	RS232, RS485 or Terminal (software selectable) Optional SNMP over IEEE 802.3 10-Base-T Ethernet
Serial Interface Connectors	Dual RJ45
Power Requirements	100 to 240 VAC, 50 to 60 Hz -48 VDC (Option 6S2)
Power Consumption	80 Watts
Operating Temperature	10 to 40°C (50 to 104°F)
Mounting	Standard 19" (48.3 cm) - 1U (1.75") rack space
Dimensions	19"(w) x 14.25"(d) x 1.75"(h) (48.3 x 36.2 x 4.45 cm)
Weight	11 lbs. (5kg)
F Connectors	ANSI SP 406-1998

OPTIONS

1P4 - 43.75 MHz IF with 8 MHz Passband	2R4 - Redundant Power Supply (- 48 VDC)
2S1 - SNMP Proxy Agent and Interface	6S2 - Internal -48 VDC Power Supply
2R3 - Redundant Power Supply (100 to 240 VAC)	



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