

UNITY 4600

PROFESSIONAL MEDIA RECEIVER



Unity 4600 APPLICATIONS

Broadcast TV

- Linear TV Distribution

Radio

- Live Radio Broadcasts

OPTIONS

- 4 Port RF Switch
- Turbo PSK Modulation
- ASI Input
- International Power
- Digital Audio Outputs
- Dolby Digital Pass Through
- 14-Relay Expansion Card

MEDIA DISTRIBUTION

WEGENER's Unity 4600 is specifically designed to meet the needs of professional media networks. The Unity 4600 has both analog and digital outputs built in, enabling you to deploy one common IRD to both analog and digital affiliates. The digital output is DVB ASI. The Unity 4600 is equipped with two stereo audio pairs, in both MPEG layer 2 and Dolby® Digital formats.

DIGITAL FLEXIBILITY

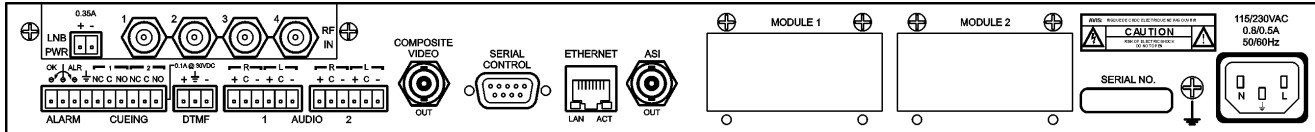
COMPEL Control® lets you enable programs and change the program mapping of the ASI output. Multiple program decrypt enables the Unity 4600 to look at the entire program stream, then decrypt and pass only the programs authorized for that receiver as a digital ASI output. Programs not selected are overwritten with null packets. This advanced digital capability provides maximum flexibility in controlling your program distribution.

COMPEL PUTS YOU IN CONTROL

COMPEL® network control system puts every WEGENER receiver and uplink feed under a central network operator's control. It gives you the power to manage a mixed network of Unity 4600 and other WEGENER IRDs with unparalleled functionality. Use Compel to issue commands that are accurately synchronized with video and multi-language audio programming. Optimize bandwidth utilization with scheduled commands that regionalize programming and commercials. Command individual or groups of receivers to output video, audio, data, or switch/ tune to specific satellite transponders for field-proven disaster recovery.

UNITY 4600 - PROFESSIONAL MEDIA RECEIVER

THE UNITY 4600 REAR PANEL



TECHNICAL SPECIFICATIONS

RF CHARACTERISTICS - Standard Demod

Input Frequency	Tuning via Front Panel Control or COMPEL
Input Frequency Range	950 to 2150 MHz
RF Ports	Four F Connector Inputs
Carrier Lock Range	+/-3.0 MHz
Input Level Range	-25 dBm to -65 dBm
Input Impedance	75 Ohms
LNB Power	18 VDC @350 mA max.
Universal LNB Control	13/18V Polarity Switching plus 22 kHz LO Control
Tuning Resolution	1KHz
Modulation	DVB-QPSK
Symbol Rate Range	2 -30 Msps
FEC Coding (DVB)	1/2, 2/3, 3/4, 5/6, 7/8

RF CHARACTERISTICS - ADVANCED Demod (optional)

Frequency	Tuning via Front Panel Control or COMPEL
Input Frequency Range	950 to 2150 MHz
RF Ports	Four F Connector Inputs
Carrier Lock Range	+/-3.0 MHz
Input Level Range	-20 dBm to -70 dBm
Input Impedance	75 Ohms
LNB Power	18 VDC @350 mA max.
Universal LNB Control	13/18V Polarity Switching plus 22 kHz LO Control
Tuning Resolution	1KHz
Modulation Supports	DVB-QPSK or advanced "Turbo" QPSK/8PSK/16QAM
FEC Ratios	DVB-QPSK R=1/2, 2/3, 3/4, 5/6, 7/8 Turbo QPSK R= 1/4, 1/2, 3/4 Turbo 8PSK R= 2/3, 3/4, 5/6, 8/9 Turbo 16QAM R= 3/4
Symbol Rate Range	2 -30 Msps

RF CHARACTERISTICS - 4 PORT RF SWITCH

Isolation	950 - 1450 MHz exceeds 45 dB 1450 - 2150 MHz exceeds 40 dB
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DATA

Interface	RS-232C
Maximum Data Rate	38.4 Kbps
Connector	DB9

VIDEO OUTPUT CHARACTERISTICS

Video Format	NTSC/PAL
Output Level	1.0 Volts P-P +/- 5%
Output Impedance	75 Ohms
Output Connector	BNC (2 - includes front monitor port)
Video Frequency	0.5 - 4.2 MHz +/- 0.8dB
Response (NTSC)	
Signal to Noise Ratio	>56 dB
Differential Gain	<4%
Differential Phase	<1.5°
Line Time Distortion	<1 IRE
Field Time Distortion	<3 IRE

VIDEO SYSTEM CHARACTERISTICS

Video Data Rate	15 Mbps Max
Compression Type	MPEG ML @ MP (4:2:0)
Resolutions	All MPEG/DVB Resolutions Supported

CLOSED CAPTIONING & XDS

Re-inserts automatically from Harmonic, Tandberg and ATSC protocols

AUDIO OUTPUT CHARACTERISTICS

Compression Type	MPEG-2 Layer II, Dolby Digital
Output Modes Supported	Mono, Dual Mono, Joint Stereo
Data Rate	Up to 384 Kbps ES rate MPEG, Up to 640 Kbps AC-3 (optional)
Frequency Response	20Hz to 20KHz +0.5 / - 1.5 dB
Output Level @ max PPL	+18 dBm, variable
Load Impedance	600 Ohms
Harmonic Distortion	<0.2 %
S/N Ratio	>80 dB unweighted
Audio Ports	2 independent stereo pairs
Connectors	Quick Disconnect Screw Terminals
Audio Monitor	Front Panel 1/4" headphone jack (optional)

DTMF TONE OUTPUTS

Output Level	-2 to +8 DBM, variable
Output Impedance	600 Ohms, Balanced
Connector	Quick Disconnect Screw Terminals

CONDITIONAL ACCESS OPTIONS

- WCI Compel CA with internal SIM card
- PIN Scrambling

OTHER OPTIONS

- ASI Inputs (in place of Rx card)
- Relay Expansion Card
- Digital Audio Output

RELAY CHARACTERISTICS

Alarm Relay	Form C
CUE Relays (2)	Form C
	COMPEL Controlled

UNIT CONTROL

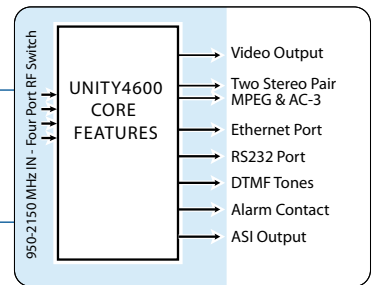
Front Panel	LCD and keypad
Ethernet	Telnet over TCP/IP
Serial M&C Port	WEGENER COMPEL Control

MECHANICAL

Power	Universal Switching Power Supply 1.75"H x 19"W x 13.5"D (Rack mount)
Operating Temperature	10° to 50° C

AGENCY APPROVALS

FCC Class A, UL, CE, Euro RoHS-some models



www.wegener.com/PRODUCTS/index.php

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