

# UNITY 4600

## PROFESSIONAL MEDIA RECEIVER



### Unity 4600 APPLICATIONS

#### Broadcast TV

- **Linear TV Distribution**

#### Radio

- **Live Radio Broadcasts**

#### OPTIONS

- **4 Port RF Switch**
- **DVB-S2 Modulation**
- **ASI Input**
- **Digital Audio Outputs**
- **Dolby Digital Pass Through**
- **14-Relay Expansion Card**
- **International Power**

#### 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

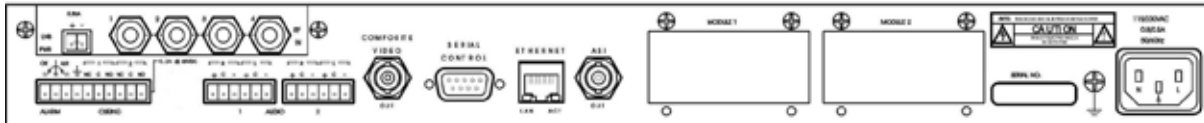
COMPEL Control® lets you enable programs and change the program mapping of the ASI output. Multiple program decrypt enables the Unity 4600 to look at the entire program stream, then decrypt and pass only the programs authorized for that receiver as a digital ASI output. Programs not selected are overwritten 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

Control	Tuning via Front Panel, Terminal 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	10 KHz
Modulation Supports	DVB-QPSK or DVB-S2
FEC Ratios	DVB-QPSK R=1/2, 2/3, 3/4, 5/6, 7/8 DVB-S2 QPSK R= 1/2,3/5,2/3,3/4,4/5,5/6,8/9,9/10 DVB-S2 8PSK R= 2/3,3/4, 3/5,5/6,8/9,9/10
Symbol Rate Range	DVB-S = 2-30 Msps* DVB-S2 QPSK = 2.5-30 Msps DVB-S2 8PSK = 2.5-30 Msps

### RF CHARACTERISTICS - 4 PORT RF SWITCH

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

### TRANSPORT OUTPUT

Interface	DVB-ASI per EN 50083-9 Annex B
Encryption	Descrambled internally or bypass
Controls provided	Simple muting or program mapping w/ single-program PID restamping

### 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

### 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

### 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)

### CONDITIONAL ACCESS OPTIONS

- COMPEL CA with internal SIM card
- PIN Scrambling

### OTHER OPTIONS

- ASI inputs (in place of Rx card)
- 14-relay expansion card
- AES3 digital audio (2)

### RELAY CHARACTERISTICS

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

### UNIT CONTROL

Front panel LCD and keypad  
Terminal control over Telnet over TCP/IP  
Terminal control over serial port  
WEGENER COMPEL Control over satellite channel

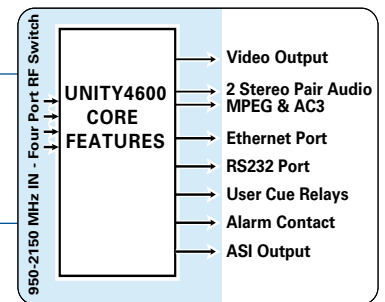
### MECHANICAL

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

*\*To request information on lower symbol rates please contact your WEGENER representative*



[www.wegener.com/PRODUCTS/index.php](http://www.wegener.com/PRODUCTS/index.php)

11350 Technology Circle, Duluth, GA 30097 ph 770.814.4000 f 770.623.0698 info@wegener.com

WEGENER, COMPEL, COMPEL CONTROL, iPUMP, MEDIAPLAN, UNITY, ASSURED FILE DELIVERY, PANDA, PROSWITCH, VIDATA, the stylized W-design logo (for WEGENER®), the stylized C-design logo (for Compel®) and the stylized PANDA design logo are all registered trademarks of WEGENER®.  
Specifications subject to change without notice ©2010 WEGENER. All Rights Reserved.