

Headend Systems

CYGNUS™ PAL B/G Television Modulator

Description

The CYGNUS™ PAL B/G television modulator is a fixed frequency adjacent channel modulator designed for use in mid- and large-sized broadband networks. It employs a high-quality Phase Locked Loop (PLL) circuit to provide advanced performance and excellent versatility in a 19-inch (1 RU) chassis.



Features

- Adjacent channel operation
- Any fixed channel within 48 MHz to 861 MHz
- Independent oscillation in IF 38.90 MHz
- PLL frequency composite in video carrier frequency and audio carrier frequency
- SAW provided for IF
- Adjustable A/V, RF level, video modulation, and audio deviation - flexible to use
- IF input/output interface for scrambling

Specifications

RF	Units	Specifications
Television System	-	PAL B/G
Frequency Range	MHz	48 to 861 (fixed channel)
IF	MHz	38.90
Video/Audio Carrier Interspace	MHz	5.5 ± 2 kHz
Output Return Loss	dB	VHF ≥12 UHF ≥10
Video Carrier Output Level	dBμV	≥ 114 (<550 MHz) ≥ 110 (>550 MHz)
Video/Audio Carrier	dB	14 to 22 (factory set at 17±1 dB)
Video Carrier Deviation	kHz	VHF ±10 UHF ±20
CNR	dB	≥58
Spurious In-band	dB	≤-60
Spurious Out-band	dB	≤-60
Test Point	dB	-20±1.5
Video		
Connector Type	-	RCA
Video Modulation Depth	%	80 ±5
In-band Flatness (within 5 MHz)	dB	≤ 1.5
Differential Gain	%	≤5
Differential Phase	°	≤5
K Figure	%	≤4
Chrominance-Luminance Delay Inequality	ns	≤60
SNR(weighted)	dB	≥56
Audio		
Connector Type	-	RCA
Pre-emphasis	μs	50
Audio Deviation	kHz	± 50
Frequency Response	dB	±1.5 (40 Hz to 15 kHz)
Distortion	%	≤1
SNR	dB	≥55
Others		
Powering	V	230 V AC ± 10% (50/60 Hz)
Power Consumption	W	15
Dimensions	mm in.	482 x 180 x 44 19.0 x 7.1 x 1.7
Weight	kg lbs	2.5 5.5

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Ordering Information

Description	Part Number
CYGNUS PAL B/G Modulator, Channel E2	2871200E02
CYGNUS PAL B/G Modulator, Channel E3	2871200E03
CYGNUS PAL B/G Modulator, Channel E4	2871200E04
CYGNUS PAL B/G Modulator, Channel E5	2871200E05
CYGNUS PAL B/G Modulator, Channel E6	2871200E06
CYGNUS PAL B/G Modulator, Channel E7	2871200E07
CYGNUS PAL B/G Modulator, Channel E8	2871200E08
CYGNUS PAL B/G Modulator, Channel E9	2871200E09
CYGNUS PAL B/G Modulator, Channel E10	2871200E10
CYGNUS PAL B/G Modulator, Channel E11	2871200E11
CYGNUS PAL B/G Modulator, Channel E12	2871200E12
CYGNUS PAL B/G Modulator, Channel E21	2871200E21
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CYGNUS PAL B/G Modulator, Channel E25	2871200E25
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CYGNUS PAL B/G Modulator, Channel E56	2871200E56
CYGNUS PAL B/G Modulator, Channel E57	2871200E57

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Ordering Information, continued

Description	Part Number
CYGNUS PAL B/G Modulator, Channel E58	2871200E58
CYGNUS PAL B/G Modulator, Channel E59	2871200E59
CYGNUS PAL B/G Modulator, Channel E60	2871200E60
CYGNUS PAL B/G Modulator, Channel E61	2871200E61
CYGNUS PAL B/G Modulator, Channel E62	2871200E62
CYGNUS PAL B/G Modulator, Channel E63	2871200E63
CYGNUS PAL B/G Modulator, Channel E64	2871200E64
CYGNUS PAL B/G Modulator, Channel E65	2871200E65
CYGNUS PAL B/G Modulator, Channel E66	2871200E66
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CYGNUS PAL B/G Modulator, Channel S01	2871200S01
CYGNUS PAL B/G Modulator, Channel S02	2871200S02
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CYGNUS PAL B/G Modulator, Channel S04	2871200S04
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CYGNUS PAL B/G Modulator, Channel S36	2871200S36
CYGNUS PAL B/G Modulator, Channel S37	2871200S37

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Ordering Information, continued

Description	Part Number
CYGNUS PAL B/G Modulator, Channel S38	2871200S38
CYGNUS PAL B/G Modulator, Channel S39	2871200S39
CYGNUS PAL B/G Modulator, Channel S40	2871200S40
CYGNUS PAL B/G Modulator, Channel S41	2871200S41
CYGNUS PAL B/G Modulator, Channel X	2871200X
CYGNUS PAL B/G Modulator, Channel Y	2871200Y
CYGNUS PAL B/G Modulator, Channel Z0	2871200Z0
CYGNUS PAL B/G Modulator, Channel Z+1	2871200Z01
CYGNUS PAL B/G Modulator, Channel Z+2	2871200Z02



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