

D+D Electronics

PRODUCTS

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DD 2400 PROFESSIONAL SIGNAL METER



DOLBY
DIGITAL PLUS

- DVB-S/S2, DVB-T/T2, DVB-C Demodulation and analysis
- High-resolution 7-inch TFT-LCD screen
- High quality DSP Spectrum from 50-2200MHz with 50dB of onscreen dynamic range
- Supports HEVC(H.265), H.264 and MPEG2 decoding, SD & HD
- Single F Male connector input featuring a fully automatic attenuator with channel power of up to 120dB μ V in 5dB steps
- Measures Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation
- RF power supply from 5 to 24V, in 1V steps
- Supports DiSEqC 2.0, SatCR and dCSS
- Special spectrum modes (Max Hold, Spectrogram) for interference detection and LTE Measuring
- Efficient and user friendly User Interface
- Full TS recording to external USB drive
- Standard 6h battery life per charge
- Supports automatic adjustment of screen brightness
- Supports spectrum + TV decoding, and spectrum + MPEG information simultaneously
- Standby mode for instant power on
- Multi-function wheel navigation
- Screen capture to external USB drive with a dedicated button
- SAT support, TP update separately via USB or FTP (WiFi)
- Firmware updates through USB or FTP (WiFi)
- EAC3 Dolby DD + codec

TECHNICAL INFORMATION		
Display type	7-inch TFT LCD	
Display resolution	1024*600	
Lithium battery	7.4 V 7800 mAh 57.7 Wh	
RF Input	F Male connector,75 Ω	
Video/Audio output	HDMI Output	
External Units Power supply		
Satellite band	0 V, 5 ~ 24 V (Steps1 V)	
22KHz singal	Selectable in Satellite Band	
DiSEqC generator	DiSEqC 1.0/1.1/2.0	
Terrestrial Band	0 V, 5 ~ 24 V (Steps1 V)	
Battery Operation Time	6 hours	
Power off current	<2 mA	
VIDEO DECODING		
DECODING	MPEG1, MPEG-2 MP@ML, H.264, VC1, DV, MPEG-4, H.265 (1080p@60fps), EAC3 Dolby DD + codec	
AUDIO DECODING		
DECODING	MPEG-2 layer I and II (Musiccam), MPEG4 AAC	
OUTPUT MODE	Mono, Dual Channel, Stereo, Joint Stereo	
METER NAVIGATION MODE		
Satellite		
Frequency Range	950~2150MHz	
Support Measurement parameter	Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation	
Symbol rate	1 ~ 55 MS/s	
Resolution	0.1 dB	
Accuracy	±1.8 dB	
MER range	>25 dB	
Power range	20~120 dBμV	
Demodulation	DVB-S/S2 QPSK, 8PSK, 16APSK, 32APSK, ACM / VCM	
Terrestrial		
Frequency Range	51 ~ 1000 MHz	
Support Measurement parameter	Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation	
Bandwidth	6 MHz, 7 MHz, 8 MHz	
Resolution	0.1 dB	
Accuracy	±1.8 dB	
MER range	>35 dB	
Power range	30~120 dBμV	
Demodulation	DVB-T/T2 COFDM	
Cable		
Frequency Range	51 MHz ~ 1000 MHz	
Support Measurement parameter	Power, CBER, VBER, MER, Constellation	
Symbol rate	6 MS/s	
Resolution	0.1 dB	
Accuracy	±1.8 dB	
MER range	>35 dB	
Power range	30~120 dBμV	
Demodulation	DVB-C QAM,J83 Annex C QAM	
SPECTRUM NAVIGATION MODE(DSP)		
Frequency Range	Terrestrial & Cable:50 ~ 1000 MHz Satellite: 900 ~ 2200 MHz	
Reference Level	Terrestrial & Cable: 60 ~ 110 dBμV in 5 dB steps Satellite: 60 ~ 110 dBμV in 5dB steps	
Accuracy	±1.8 dB	
Span	Terrestrial & Cable: 10, 20, 50, 100, 200, 500, 950 MHz Satellite: 10, 20, 50, 100, 200, 500, 1200 MHz	
RBW	Terrestrial & Cable: 36, 72, 145, 291, 583, 1166 KHz Satellite: 100 KHz, 200 KHz, 500 KHz, 1 MHz, 2 MHz, 5 MHz	
FFT/Sample Size	1024 Points	
INTERFACE		
Left side interface	HDMI 1.4A	
	USB 2.0 (MAX 1 A)	
	RS232	
	DC IN	
Top interface	TUNER	3 tuners in 1 (DVB-S/S2, DVB-T/T2, DVB-C)
Buttons on panel	4 LED lights	On /Off, Charge, Lock, RF Power
	24 Buttons	(TV, Spectrum, Meter, Options, Menu, Band, Up, Down, Left, Right, Enter, Esc, 0-9 Power)
Housing (cabinet)	Dimensions	269 mm (L) x 187 mm (W) x 62.5 mm (H)
Accessories	Adapter	15 V-2,5 A
	Car charger	Yes
	Carrying bag	Included (space for tools and pocket)
	F female to female connector	Yes

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DD 1200

COFDM HD WITH HDMI LOOP MODULATOR



- HD resolution up to 1080p
- LED indicator of active HDMI source
- LOOP HDMI IN / OUT
- Excellent modulation quality. MER ≥ 33 dB
- Quick menu. Easy selection by buttons of channel, attenuation and program ID
- Advanced programming via PC software , MD HD Soft

REFERENCE		DD 1200
Input		HDMI
Output		HDMI LOOP
VIDEO		
Video resolution		480p - 576p - 720p - 1080p
Video compression		H.264
Video rate	Kbps	500-15000
AUDIO		
Audio compression		MPEG1-L2, AAC-LC
Audio rate	Kbps	128, 192, 256, 320
MODULATION		
DVB processing		NIT, PID
DVB adjustments		NID, ONID, Network ID, Network name, TS ID, Program ID, Program name, PMT PID, Video PID, Audio PID
Output frequency	MHz	170-230 & 470-862
Output channel	N.	5...12 + 21...69
Output level	dB μ V	>80
Attenuation	dB	0...15
MER	dB	\geq 33
Bandwidth	MHz	6, 7, 8
Constellation		QPSK, 16QAM, 64QAM
Mode		2K, 8K
FEC		1/2, 2/3, 3/4, 5/6, 6/7
Guard interval		1/4, 1/8, 1/16, 1/32
LCN		EACEM, ITC, NORDIG
RF loop	dB	-2
GENERAL		
Power supply	Vdc	+5Vdc
Power consumption	W	<10
Dimensions	mm	150 x 99 x 34
Weigth	g	215

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DD 1201

4K COMPATIBLE HD MODULATOR



- Digital modulator-encoder
- HD COFDM.
- LOOP HDMI IN / OUT.
- Resolution up to 1080p.
- Excellent MER modulation quality $> = 33\text{dB}$.
- Quick menu Easy channel setting,
- attenuation and program identifier by means of buttons on the front.
- Easy advanced programming via PC program (MDHDSOft).

REFERENCE		MD HD L4K
Code		122015
IN		HDMI 2.0, fully compliant HDCP 2.2 backwards compliant HDMI 1.4
OUT		loop HDMI
VIDEO		
Input video resolution supported		480i@60Hz, 480p@60Hz, 576i@50Hz, 720p@50/60Hz, 1080p@50/60Hz, 1080i@50/60Hz, 4Kx2K@24/30/50Hz
Data rate		6Gbps per channel
Video encoding		H.264
Video rate		15 Mbps
AUDIO		
Audio encoding		MPEG1-L2, AAC-LC
Audio rate	Kbps	128, 192, 256, 320, 384
MODULATION		
Output video resolution		1080p maximum
DVB processing		NIT, PID
DVB configuration		NID, ONID, Network name, TSID, PID, Program name, PMT PID, Video PID, Audio PID
Output frequency	MHz	170-230 & 470-862
Channel output		5-12 & 21-69
Output level	dBuV	>80
Attenuation	dB	0..15
MER	dB	>33
Bandwidth	MHz	6,7,8
Constelation		QPSK, 16QAM, 64QAM
Mode		2K, 8K
FEC		1/2, 2/3, 3/4, 5/6, 7/8
Guard interval		1/4, 1/8, 1/16, 1/32
LCN		EACEM, ITC, NORDIG
Loop RF	dB	-2
GENERAL		
Power supply	Vdc	5
Power consumption	W	<5
Size	mm	170x130x35
Weight	Kg	0,6

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DD 0700

DIGITAL PROGRAMMABLE AMPLIFIER



- 4 inputs (1 x FM, 1 x VHF + DAB + UHF selectable, 2 x VHF/UHF selectable)
- 2 outputs (TER / TEST -30dB)
- 32 ultra-selective digital filters
- Gain >70dB autoreg.
- Output level 120dBuV (45004B) / 131dBuV (IMD3-36dB)
- Automatic digital multiplex search
- Programming with buttons and display. Simple navigation through the menu
- Processing functionality for channel conversion
- Automatic gain control in real time
- Preamp Power Option
- Possibility of remote power supply through the output connector
- Compact size: 190 x 120 x 50 mm

REFERENCE	DD 0700		
	VHF/UHF	FM	DAB/ VHF/ UHF
Inputs	2	1	1
Frequency range	195 – 694 / 790 /862 MHz	88-108 MHz	195 – 694 / 790 /862 MHz
Max. gain	>70dB autoreg.	35dB	>70dB autoreg.
Number of filters	32*	-	32*
Channels per filter	1	-	1
Selectivity	>30@+/-1MHz	>20@+/-20MHz	>30@+/-1MHz
Equalizer	0..6	-	0..6
Attenuation control	0...20dB+AGC	0...20dB	0...20dB+AGC
Max. input level	110dB μ V	-	110dB μ V
Max. output level (DIN45004B)	120dB μ V		
Max. output level (EN50083 IMD3 2CH -36dB)	128-131dB μ V**		
Noise figure	-	<6dB	-
Isolation	>35dB@+/-1MHz	>20dB@+/-20MHz	>35dB@+/-1MHz
Max. preamplifier energy consumption	12Vdc/OFF	-	12Vdc/OFF
Power supply	100-254Vac / 50-60Hz 12Vdc remote power option through the output connector		
Energy consumption	<20W		
Operational temperature range	-10...45°C		
Screen	2 lines, 16 characters		
Connector type	F		
RF output	TER / TEST -30dB		

** Number of filters for UHF inputs. If the DAB input is selected, 6 filters will be assigned to this band and 26 to the UHF inputs

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