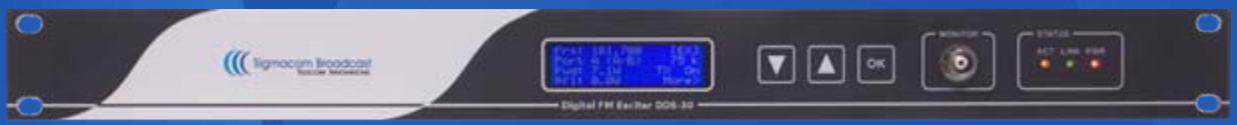
Sigmacom Broadcast



DDS-30

NEW VERSION 2

SFN Ready

Sigmacom Broadcast
TELECOM INNOVATIONS

The leaders in MPX and SFN over IP
http://www.sigmacom.gr

MADE IN THE EU

DDS-30 v2 FM Exciter

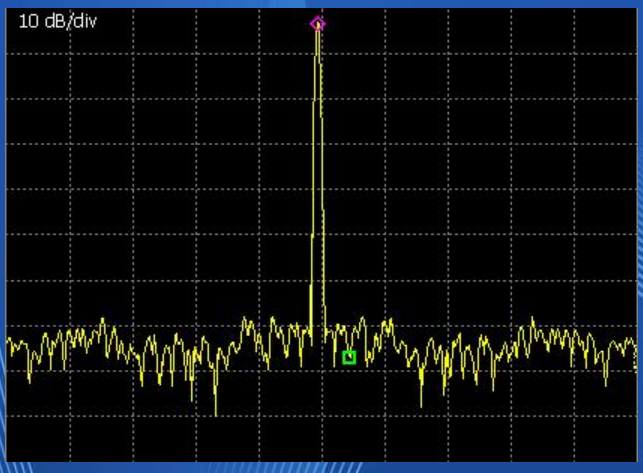
Key Facts

• The first DDS FM exciter in the world since 2010, that accepts Digital MPX (MPX over AES)
• Professional, 24-bit audio resolution
• Sub mHz precision on carrier generation and modulation
• DC coupled analog inputs minimizes overshoots
• Integrated SFN operation, up to 12.800km (in basic version, others on request)
• External 10MHz & 1PPS reference signals
• Internal DSP stereo encoder with ultimate separation
• Remote control and telemetry via web interface or RS232
• 4 user-selectable TX modes of operation: Stereo, Mono, External Baseband, Mute (CW)
• Programmable RF output power based on user defined schedules
• Configurable actions on alarm events
• Easy and compact LCD user Interface in front panel
• Optional embedded EtherMPX decoder

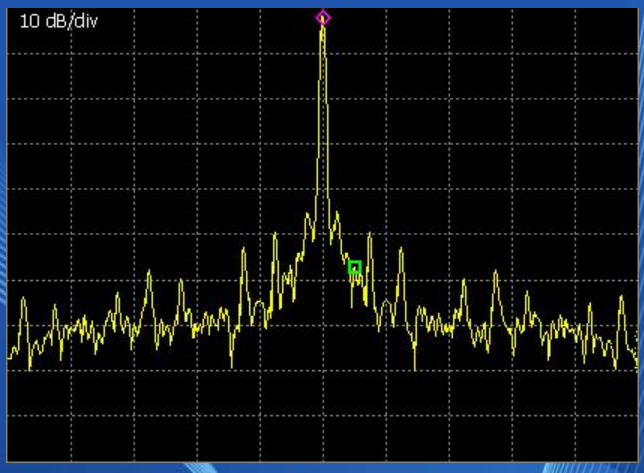
Available options:

• SFN operation (OPT-001)
• Embedded EtherMPX Decoder (OPT-002)
• Internal RDS (OPT-003)

Use the embedded EtherMPX decoder option for the DDS-30 and experience MPX from ethernet to RF! The only analog part in the chain, will be your audience receivers!



DDS-30: Noise & spurious within 2 kHz span



PLL + VCO: Noise & spurious within 2 kHz span

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MADE IN THE EU

DDS-30 v2 FM Exciter

Technical specifications

GENERAL	
Model name	DDS-30 v2
Dimensions	19” 1U chassis
Power supply	230VAC 50Hz, 65W
Operating temp	-20 to +60 Celsius
Output frequency	87.5 to 108.0 MHz
Carrier modulation	Direct Digital Synthesis FM
TX Modes	Mute, Mono, Stereo, External Baseband
Internal stereo encoder	DSP based (32 bit DSP), >70dB separation
19 kHz pilot level	User adjustable, 8.0 to 12.0 %
Deviation level	User adjustable, +/- 20 to 150 kHz
Audio / MPX in level	User adjustable, -25.0 to 0.0 dBFS
Input port selection	User selectable primary / secondary
Port monitor	RF Out -40dBc @ 50Ohm

RF SECTION	
RF ouput	0-30W @ 50 Ohm User selectable time schecules
Frequency stability	+/-2.5 ppm with INT TCXO +/-1 ppb on EXT 10MHz source
Carrier generation	Direct to channel Digital Synthesis
Frequency step	10 kHz (1 kHz optional)
Frequency resolution	<1 uHz
Ouput phase noise	-120dBc/Hz @ 1 kHz
SFDR	>-80dBc within channel
RF connector	N female
SWR protection	User selectable threshold & action

ETHERNET INTERFACE	
Connector	RJ45 Female 10/100 Auto MDI-X
Protocols supported	HTTP, ICMP, SNMP (management) Proprietary UDP Unicast or Multicast and IETF RFC2474 QoS compliant when used as EtherMPX decoder.

AUDIO SECTION	
Input name	Port A
Input type	Digital electrical interface
Connector	XLR-3 female
Impedance	110 Ohm balanced - transformer isolated
Supported formats	AES3, IEC60958, S/PDIF
Maximum data rate	12.288 Mbit/s
Audio sample rate	48kHz for L/R input, 192kHz for D-MPX (internal ASRC values)
Audio sample resolution	24 bit

Input name	Port B
Input type	Analog electrical interface - 2 inputs
Connector	2 x XLR-3 female, 2 x BNC female
Impedance	1 kOhm balanced / unbalanced
ADC resolution	24 bit
ADC sample rate	48kHz for L/R input, 192kHz for A-MPX
ADC THD+N	-106dB (0.0005%)
ADC Dynamic range	121 dB (no weighting)
Channel separation	135 dB
Reference input	3.47Vpp (+4dBu) for 0 dBFS
Input BW @ 96kHz SR	-0.1dB @ 40 kHz
Input BW @ 192kHz SR	-0.1dB @ 80 kHz

SFN OPERATION	
Max distance	12.800 km (basic version)
Step	300m

NOTE: These are preliminary technical specifications and might change without notice. Please do not hesitate to contact us for the most updated information at: support@sigmacom.gr