

TECHNICAL DATA

FM Exciter FME-20

Frequency range	87,5 – 108 MHz
Frequency setting	digital in 10 kHz steps
Frequency stability	±1 ppm
Frequency deviation	±75 kHz nom. ±100 kHz max.
Output power	≥20 W
Output connector	N
Harmonic suppression	≥60 dB
Input impedance	600 Ω sym./asym.
Nominal input level	0 dBm, adjustable in range -6 to +12 dBm
Type of modulation	FM
Harmonic distortion	≤0,4%, 500 Hz
Signal/noise ratio	≥60 dB
Frequency response	±0,2 dB 40 Hz to 15 kHz, ±0,4 dB 15 kHz to 100 kHz
Display indications	frequency, forward and reflected power, input level, deviation, DC voltages and current
Power supply	220 V±10%, 50 Hz, 80 VA max.
Ambient temperature range	0 to +45°C
Dimensions (HxWxD)	89 x 428 x 415 mm, 8 kg

Stereo Coder SK-1

Transmission method	"Pilot tone", CCIR Rec 450
Input impedance	600 Ω, electronic symmetry
Input frequency ratio	±0,2 dB, 40 Hz to 15 kHz
L/R crosstalk attenuation	≥50 dB
Output S/N ratio	≥70 dB
Output harmonic distortion	≤0,2%
Preemphasis	0, 25, 50, or 75 μs

Linear amplifiers

	DFMA250	DFMA500	DFMA1000
Frequency range	87,5 – 108 MHz	87,5 – 108 MHz	87,5 – 108 MHz
Input power	5 W	10 W	20 W
Output power	250 W ±1 dB	500 W ±1 dB	1000 W ±1 dB
Allowed output VSWR	2	2	2
Harmonic suppression	≥60 dB	≥60 dB	≥60 dB
Power consumption (220 V, 50Hz)	<700 VA	<1300 VA	<2500 VA
Operating temperature range	0 to +45°C	0 to +45°C	0 to +45°C
Dimensions (HxWxD)	135x428x415 mm	175x428x415 mm	270x428x415 mm

Subcarrier	38 kHz ± 2 Hz
Pilot frequency	19 kHz ± 2 Hz
RDS input	10 kΩ, -10 dBm
Power supply	220 V±10%, 50 Hz, 20 VA max.
Ambient temperature range	0 to +45°C
Dimensions (HxWxD)	45 x 428 x 295 mm, 5 kg

Radio Link

Frequency range	350 – 450 MHz
Frequency setting	digital in 10 kHz steps
Frequency stability	±1 ppm
Power supply	220 V±10%, 50 Hz
Ambient temperature range	-10 to +45°C
Dimensions (HxWxD)	89 x 428 x 415 mm

Transmitter LD400/2

Output power	5 or 10 W
Harmonic suppression	≥60 dB
Input impedance	600 Ω sym./asym.

Preemphasis	50, or 75 μs
Input frequency response	±0,2 dB, 20 Hz to 15 kHz ±0,3 dB, 15 kHz to 100 kHz
Harmonic distortion	<0,3%, for ±75 kHz dev.

Receiver LP400/2

IF output	0 dBm, 10,7 MHz
Deemphasis	50, or 75 μs
Input level	6 μV to 20 mV rms
Squelch	min. level 25 μV
Distortion for dev. ±100 kHz	<0,4% at 10 kHz, 0,7% at 53 kHz
Output frequency response	±0,6 dB at 20 Hz to 100 kHz
S/N ratio	≥64 dB

UHF FM Radio Broadcast Programme

- FM Exciter: **FME-20**
- Stereo Coder: **SK-1**
- Linear Power Amplifiers: **DFMA-250, DFMA-500, DFMA-1000**
- RDS Coder: **RDS-1**
- Radio Link: **LD-400/2, LP-400/2**
- Projects and Engineering
- Servicing



FM Exciter FME-20

It is an professional radio broadcast unit, that can be used as an independent transmitter of low power, or as an exciter for amplifiers of high power.

- Microprocessor controlled
- Digital frequency synthesis with 10 kHz resolution
- Built in temperature controlled crystal oscillator 6,4 MHz
- High frequency stability ± 1 ppm
- Broad band output amplifier in MOS FET technology
- Output power adjustable from 1 to 20 W
- Low level of noise and distortion
- All necessary parameters programmable by front panel keyboard
- Monitoring of all status parameters by front panel display
- Option: remote control

Stereo Coder SK-1

- High level of channel separation
- Stereo transmission according to CCIR Rec.450, pilot tone method
- High level of signal/noise ratio
- Electronic symmetry of input
- Two LED bars for measurement of input parameters
- Wide input sensitivity range from -6 to $+12$ dBm
- Usable with any standard exciter
- RDS input

Linear Power Amplifiers DFMA250, 500 and 1000

In production line are three types of linear power amplifiers for output power 250, 500 and 1000 W.

- MOS FET technology
- Microprocessor control of all relevant parameters
- Broad band output from 87,5 to 108 MHz
- Built in low pass filter for harmonics suppression
- Modular design

UHF FM Radio Broadcast Programme



FM Exciter FME-20



Stereo Coder SK-1



Linear Power Amplifier DFMA250

- Protection against excessive reflection, temperature and over voltage
- Front panel display enable measurements of output power, reflected power, DC voltages and currents
- Cooling by forced air blowers

RDS Data Coder RDS-1

RDS system enables data transmission by UHF broadcast transmitters in parallel with standard broadcast programme.

Main features of RDS-1:

- Programme identification (PI)
- Program type (PTY)
- Decoder identification (DI)
- Alternative frequencies (AF)
- Programme station name (PS)
- Traffic programme (TP)
- Traffic annunciation (TA)
- Music/speech (MS)
- Clock time and date (CT)

Radio Link LD400/2-LP400/2

It enables good quality of programme transmission from studio to remote UHF broadcast transmitter site.

- Microprocessor controlled
- Digital frequency synthesis with resolution of 10 kHz
- High frequency stability ± 1 ppm
- Low noise and distortion
- Frequency range 350 to 450 MHz