

1.2. TECHNICAL DATA

General information:

On delivery from the factory, the instrument complies with the safety regulations of measuring and control equipment. The information and warnings contained in this instruction manual must be followed by the user to ensure safe operation and to maintain the instrument in a safe condition.

- Only data with indicated tolerances or limits are guaranteed; data without tolerances are given only for guidance.
- All specifications will be met after a warm-up time of 30 min. when keeping the instrument in a constant mounting position.
- Inaccuracies (absolute or in %) relate to the indicated reference value.

SPECIFICATIONS

1.2.1. RF Generator

Frequency range	0,1 – 125 MHz
Ranges	0,1 – 0,25 MHz 0,25 – 0,5 MHz 0,5 – 1 MHz 1 – 2,5 MHz 2,5 – 5 MHz 5 – 10 MHz 10 – 25 MHz 25 – 50 MHz 50 – 125 MHz
Frequency display	5-digit LED display, red, 11 mm high; 3 decimal points; 2 LEDs for dimension kHz, MHz
Error of the display	$< 10^{-4}$ typical, ± 1 digit
Temperature coefficient of the display	$\pm 5 \times 10^{-6}/^{\circ}\text{C}$ at $23^{\circ}\text{C} \pm 20^{\circ}\text{C}$
Temperature coefficient of the frequency	$< 10^{-5}/^{\circ}\text{C}$

1.2.2. RF Sweep generator

Ranges	.4/.5 MHz 10/11 MHz 36/41 MHz 75/110 MHz
wave form	semi-rectangular

1.2.3. RF output

	for all RF ranges and all sweep ranges
Connection:	BNC connector RF OUT
Impedance:	75 Ω
max. output voltage:	50 mV into 75 Ω
Frequency response:	$< \pm 2$ dB (1 dB typ.) for all RF ranges
Attenuator	> 100 dB total 0 – 80 dB continuous 3 dB, 40 dB calibrated

1.2.4. Modulation

Modulation modes

unmodulated
amplitude-modulated, AM
frequency-modulated, FM

Frequency response

Modulating output MOD OUT

Amplitude modulation

unmodulated

AM, internal

AM, external

Frequency modulation

FM, internal

FM, external

see also table in chapter 3.2.

all RF ranges and all sweep ranges

all RF ranges and all sweep ranges

sweep ranges 10/11 and 75/110 MHz

< 2 dB in .4/.5 and 10/11 MHz ranges

< 0.2 dB in 36/41 and 75/110 MHz ranges

1 kHz sine, 2 V

resp. external modulating signal at MOD IN

all RF ranges and all sweep ranges

all RF ranges and all sweep ranges

Modulation frequency: 1 kHz sine

Modulation depth: 30 %

Modulation depth: 0 – 100 %

Modulation coefficient: 200 mV/10 % AM

3 dB band width: 20 Hz – 20 kHz

Input impedance: > 10 k Ω

10/11 and 75 /110 MHz ranges

Modulation frequency: 1 kHz sine

Sweep (Δf): 22,5 kHz

Modulation signal: 20 Hz – 60 kHz (3 dB)

Sweep (Δf): 0 – 75 kHz

Modulation coefficient: 200 mV/ $\pm 7,5$ kHz

3 dB band width: 20 Hz – 60 kHz

Input impedance: > 10 k Ω

1.2.5. Wobulation

Ranges, wobulation width

Range Width ($\Delta 2 f$)

.4/.5 MHz 0 – 50 kHz

10/11 MHz 0 – > 1 MHz

36/41 MHz 0 – 10 MHz

75/110 MHz 0 – 1 MHz

Frequency response

< 0,2 dB in .4/.5 and 10/11 MHz ranges

Wobble frequency, triangle

3 – 30 Hz, blanking during fly-back

– Linearity error

< 5 %

Wobble frequency, sine-wave

50/60 Hz line frequency, phase variable

Center frequency

adjustable within the full ranges

Wobulating output SWEEP OUT

– Signal

triangle

sine-wave

– Frequency

3 – 30 Hz

50/60 Hz line frequency

– Amplitude

2,5 – 10,5 Vpp

2,5 – 10,5 Vpp

– Impedance

1 k Ω

1 k Ω

1.2.6. Marker generator

prepared by one of the RF SWEEP RANGE buttons
(indicator-LED MARKER is illuminated);
switched in by button MARKER OFF/ON

variable frequency markers

from RF generator, adjusted frequency on the display

fixed frequencies for adjustable
frequency marker spectrum

Range	Marker distance
.4/.5 MHz	10 kHz
10/11 MHz	100 kHz
36/41 MHz	1 MHz
75/110 MHz	100 kHz

Marker
Amplitude
Output
Impedance

Marker mixing, superposition; (birdy-marker)
2 V_{pp}
2 loop-through BNC connectors
> 500 k Ω

1.2.7. Counter

Frequency range
Input voltage
Input impedance

PM 5326:	PM 5326 X:
1 – 999.99 kHz	1 kHz – 99.999 MHz
50 mV – 50 V	30 mV – 50 V
1 M Ω	1 M Ω

1.2.8. Power supply

AC mains

Reference value
Nominal values
Frequency range
Power consumption

230 V
115 V/230 V selectable by solder links
48 – 63 Hz
18 W

1.2.9. Environmental conditions**Ambient temperature**

Reference value
Nominal working range
Safe operation temperature range
Limits for storage and transit

+ 23 °C \pm 1 °C
+ 5 °C ... +40 °C
–15 °C ... +55 °C
–40 °C ... +70 °C

Relative humidity

Reference range
Nominal working range

45 ... 75 %
20 ... 80 %

Air pressure

Reference value
Nominal working range

1013 mbar ($\hat{=}$ 760 mm Hg)
800 ... 1066 mbar (up to 2200 m height)