

DAB UP CONVERTER

DAB UP CONVERTER DAB-3802

OUTLINE

The DAB-3802 is designed to convert signals generated by an OFDM signal generator into signals in the tuner reception frequency bands conformable to the European DAB (Digital Audio Broadcast) Standards. It covers the frequency bands II (87.5 to 108 MHz), III (175 to 250 MHz) and L (1452 to 1492 MHz), and controls the frequency in units of 10 Hz and output level in units of 0.1 dB between 0 and -110 dBm. It stores and recalls ten types of settings in/from the memory in easy operations. It also allows remote and automatic control through GP-IB.

FEATURES

Covers frequencies in each frequency band at high stability and accuracy. As high a resolution as 10Hz.

Varies the output level between 0 and -110 dBm at a resolution of 0.1 dB. Three selectable level display units of dBm, dBμ and EMF dBμ.

Independent rotary knobs for frequency and output level adjustments. Adjustment on the ten-key pad is also enabled.

Stores a maximum of ten settings.

One-touch deviation measurement using the ΔF function.



(European type only)

SPECIFICATIONS

[Carrier Wave Frequency]

IF input signal (38.912 MHz)

Input level	-20 +1 dBm
Input impedance	50 Ω
Max. input level	+18 dBm

RF output frequencies (Frequency accuracy)

Frequency setting ranges	BAND II : 87.5 to 108 MHz
	BAND III : 175 to 250 MHz
	BAND L : 1452 to 1492 MHz
Frequency resolution	10 Hz

Reference signal generator output

Oscillation frequency	10 MHz
Temperature stability	+5 × 10 ⁻⁸ at 5 to 35 °C
Aging rate	+1 × 10 ⁻⁷ /year
Output level	0.15 V _{rms} or more (with 50 Ω termination)

External reference input signal

Frequency	10 MHz +200 Hz or less
Input voltage	0.15 V _{rms} or more (with 50 Ω termination)
Max. input voltage	5V (DC + AC peak)
Input impedance	Approx. 50 Ω

External reference signal output

Frequency	10 MHz
Output level	0.15 V _{rms} or more (with 50 Ω termination)

[RF Output]

Output level	-110 to 0 dBm (with 50 Ω termination)
Setting resolution	0.1 dB
In-band frequency response	+1 dB or less (BAND II, III/BAND L at 0dBm output level)

Level accuracy

BAND II & III	±1 dB	CW > -9 dBm
	±1.5 dB	-9 dBm ≥ CW ≥ -110 dbm
BAND L	±1 dB	CW > -9 dBm
	±1.5 dB	-9 dBm ≥ CW > -93 dBm
	±2.0 dB	-93 dBm ≥ CW -101 dBm
	±2.5 dB	-101 dBm ≥ CW ≥ -110 dBm

Unit dBm, dBμ and EMF dBμ

Output impedance 50 Ω

V SWR

BAND II & III	1.5 or less
BAND L	1.8 or less

[Signal Purity]

Spurious output

Higher harmonics

components -30 dBc or less

Non-higher harmonics components

-55 dBc or less, offset	100 kHz or more, in +100 MHz band
-50 dBc or less, offset	100 kHz or more, in all bands

[Functions]Continuous output level control

Output level continuously variable in a +5 dB range from any point in a minimum of 0.1 dB steps without cutting off the output signals without using the main attenuator

RF output ON/OFF function

Turning on and off RF output signals with the **[RF OFF]** key

Setting functions Various settings with the band setting key, ten-key pad, rotary knob (for cursor position control) and step key

Memory function Ten points (of the output bands, output frequencies and cursor positions)

GP-IB interface SH1, AH1, T3, L4, SR0, RL1, PP0, DC1, DT0, C0

[Environmental Conditions]

Altitude Up to 2000m

Overvoltage category II

Pollution degree 2

Operating temperature range

0 to 40 °C at 85% or less humidity

Within specification temperature range

5 to 35 °C at 85% or less humidity

Leakage interference 1 μV or less signal leakage on 50 Ω termination voltage when measured with a 25 mm dia. dual-winding loop antenna at a point 25 mm apart from the front panel

[General Specifications]

Source voltage 230 VAC

(power input voltage fluctuation : within ± 10%) 50/60 Hz

Power consumption Approx. 86W

Dimensions

Casing dimensions 426 (W) × 133 (H) × 485 (D) mm

Maximum dimensions 435 (W) × 149 (H) × 524 (D) mm

Weight 18.4 kg

[Regulatory Information]

LVD EN61010-1&A2 (1995)

EMI EN55011 (1991) CLASS B

EMS IEC801-2 (1991) 8kVAD

IEC801-3 (1984) 3V/m

IEC801-4 (1988)