



MAXWELLON 82401/06

50GHz~500GHz

Millimeter-Wave Source Modules
2023

Maxwellon TW82401/TW82406 series millimeter-wave source modules excel in terms of output power and application convenience. This series source module can work together with a microwave signal generator to build up a millimeter-wave signal generation system. The module is fed and controlled by the RF signal and software through corresponding special cables, respectively. The output frequency and power are controlled by the synthesized signal source. A special power adapter provides the DC drive for the modules.

■ Key Feature

- Wide frequency range: 50GHz-500GHz
- Power Supply: 15V adapter
- Input frequency: < 24GHz
- Compact and portable, low consumption, low heating volume, standard waveguide output
- Direct display: when the signal source is working, it can directly show the state of the source module's output port
- Built-in high-gain microwave amplifier which lowers the requirement on signal generator

■ Typical Applications

TW82401/TW82406 series source modules can realize the frequency extension of microwave signal source to cover 50GHz ~ 500GHz frequency band, which can satisfy the measurement requirements of high-frequency signal in the fields of millimeter-wave radar, communications, and RCS (Radar Cross-Section).

■ Specification

Model	82406	82401N	82406A	82401QA	82406B	82406C	82401SA	82406D	82401TA	82406E
Output Frequency (GHz)	50 to 75	60 to 90	75 to 110	90 to 140	110 to 170	170 to 220	170 to 260	220 to 325	260 to 400	325 to 500
Output power (dBm)	≥ +13	≥ +11	≥ +10	≥ +5	≥ +2	≥ -2	≥ -6	≥ -8	≥ -12	≥ -18
	16 (typ.)	13 (typ.)	15 (typ.)	10 (typ.)	9 (typ.)	2 (typ.)	0 (typ.)	-3 (typ.)	-6 (typ.)	-10 (typ.)
Multiplication counts	4	6	6	6	12	12	12	18	18	36
Amplitude-stabilized options	Yes	Yes	Yes	Yes	Yes	NA	NA	NA	NA	NA
Input frequency range (GHz)	12.5 - 18.75	10.0 - 15.0	12.50 - 18.33	15.0 - 23.3	9.17 - 14.17	14.17 - 18.33	14.17 - 21.67	12.2 - 18.06	14.44 - 22.22	9.02 - 13.89
Dimension (mm)	120×85×240 (without protrusions (W×H×D))									
Power type	15V adapter									
Power consumption	<25W									
RF input connector	3.5mm (f)									
Output connector	WR15	WR12	WR10	WR8.0	WR6.5	WR5.1	WR4.3	WR3.4	WR2.8	WR2.2

■ Ordering Information

Model

Model	Name	Description
82406	Source Module	Frequency Range: 50 to 75GHz
82401N	Source Module	Frequency Range: 60 to 90 GHz
82406A	Source Module	Frequency Range: 75 to 110 GHz
82401QA	Source Module	Frequency Range: 90 to 140 GHz
82406B	Source Module	Frequency Range: 110 to 170 GHz
82406C	Source Module	Frequency Range: 170 to 220 GHz
82401SA	Source Module	Frequency Range: 170 to 260 GHz
82406D	Source Module	Frequency Range: 220 to 325 GHz
82401TA	Source Module	Frequency Range: 260 to 400 GHz
82406E	Source Module	Frequency Range: 325 to 500 GHz

Standard

No.	Name	Description
1	Power Cord	3-phase power cord
2	Control Cable	Information interchange between the device and source module
3	Power Adapter	15V-16V DC output, 1 pc

Options

Option Model	Name	Function	Description
82406-01	Amplitude-stabilized	Realize stable output power in 50GHz~75GHz frequency band Output power adjustable range: 0dBm~10dBm	With BNC cable, suitable for TW4104 series signal generator
82406A- 001	Amplitude-stabilized	Realize stable output power in 75GHz~110GHz frequency band Output power adjustable range: 0dBm~10dBm	With BNC cable, suitable for TW4104 series signal generator
82406B- 001	Amplitude-stabilized	Realize stable output power in 110GHz~170GHz frequency band Output power adjustable range: -5dBm~5dBm	With BNC cable, suitable for TW4104 series signal generator



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