

# S82401/S82406 Series Millimeter-Wave Source Module Data Sheet



## Content

1	Overview.....	3
2	Main Characteristics.....	3
3	Typical Applications.....	3
4	Technical Specifications.....	4
5	Ordering Information.....	5

## 1 Overview

The S82401/S82406 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.

## 2 Main Characteristics

- Output Frequency range: 50GHz to 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

## 3 Typical Applications

The S82401/S82406 series source modules can realize the frequency extension of microwave signal source to cover 50GHz to 500GHz, which can satisfy the measurement requirements of high-frequency signal in the fields of millimeter-wave radar, communications, and RCS (Radar Cross-Section).



## 4 Technical Specifications

Model	S82406	S82401N	S82406A	S82401QA	S82406B	S82406C	S82401SA	S82406D	S82401TA	S82406E
Output Frequency range (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) (W×H×D)	120×85×240 (without protrusions)									
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

## 5 Ordering Information

### ➤ Main Unit

Model	Designation	Frequency range
S82406	Source module	50GHz to 75GHz
S82401N		60GHz to 90GHz
S82406A		75GHz to 110GHz
S82401QA		90GHz to 140GHz
S82406B		110GHz to 170GHz
S82406C		170GHz to 220GHz
S82401SA		170GHz to 260GHz
S82406D		220GHz to 325GHz
S82401TA		260GHz to 400GHz
S82406E		325GHz to 500GHz

### ➤ Standard Package

No.	Designation	Remarks
1	Power cord	Standard tri-prong power cord: 1 pc
2	Control cable	Used for information interchange between the main unit and the source module: 1 pc
3	Power adapter	15V-16V DC output, 1 pc

➤ **Options**

No.	Designation	Function	Remarks
S82406-001	Amplitude-stabilized options	Realize stable output power in 50GHz - 75GHz frequency band	With BNC cable only suitable for Saluki S1465 series signal generator
		Output power adjustable range: 0dBm to 10dBm	
S82406A-001	Amplitude-stabilized options	Realize stable output power in 75GHz - 110GHz frequency band	With BNC cable only suitable for Saluki S1465 series signal generator
		Output power adjustable range: 0dBm to 10dBm	
S82406B-001	Amplitude-stabilized options	Realize stable output power in 110GHz - 170GHz frequency band	With BNC cable only suitable for Saluki S1465 series signal generator
		Output power adjustable range: -5dBm to +5dBm	
/	Low Loss RF Cable	3.5mm-JJ, 1.2m	Required option

**-END OF DOCUMENT-**