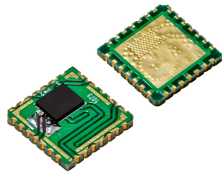




Product Description

- Heterogeneous integrated high-performance acoustic wave filter with an operating frequency range of 1298 MHz to 1770 MHz.
- Low insertion loss, high shape factor, and wide rejection of spurious modes.
- Excellent temperature stability and phase stability.
- Compact size, lightweight, high reliability, and power handling capability of 30 dBm.
- Operating temperature range: -40°C to +85°C.

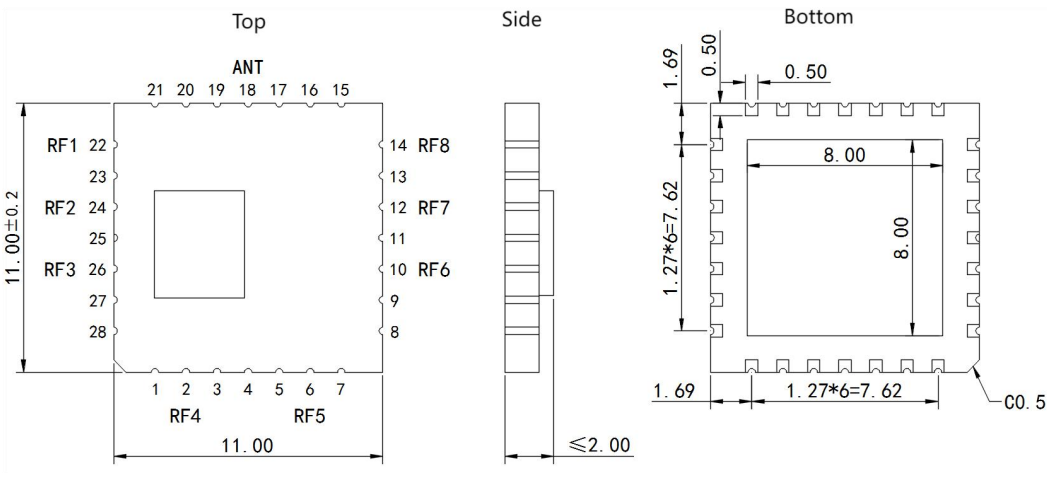


Electrical Specifications

Channel	Frequency Range	Unit
RF 1	1298-1333	MHz
RF 2	1359-1393	MHz
RF 3	1419-1453	MHz
RF 4	1479-1514	MHz
RF 5	1542-1578	MHz
RF 6	1606-1642	MHz
RF 7	1670-1706	MHz
RF 8	1734-1770	MHz

Parameter	Min	Typ	Max	Unit
Insertion Loss		3.0	3.5	dB
Amplitude Ripple		1.0	1.5	dB
Attenuation (below f0 -32 MHz)	28	35		dB
Attenuation (above f0 +32 MHz)	28	35		dB
VSWR		1.7	2.2	-
Center Frequency Drift		15		PPM/°C
Group Delay Ripple (within ±2 MHz of any frequency in the passband)		15	20	ns
Impedance Matching	1.6nH shunt inductor at ANT port			
Test Impedance	50Ω			

Outline drawing



Pin Description

Mark	Frequency	Description
ANT	1298-1770MHz	Antenna
RF1	1298-1333MHz	Channel 1
RF2	1359-1393MHz	Channel 2
RF3	1419-1453MHz	Channel 3
RF4	1479-1514MHz	Channel 4
RF5	1542-1578MHz	Channel 5
RF6	1606-1642MHz	Channel 6
RF7	1670-1706MHz	Channel 7
RF8	1734-1770MHz	Channel 8
Other	-	Ground

Product Marking:

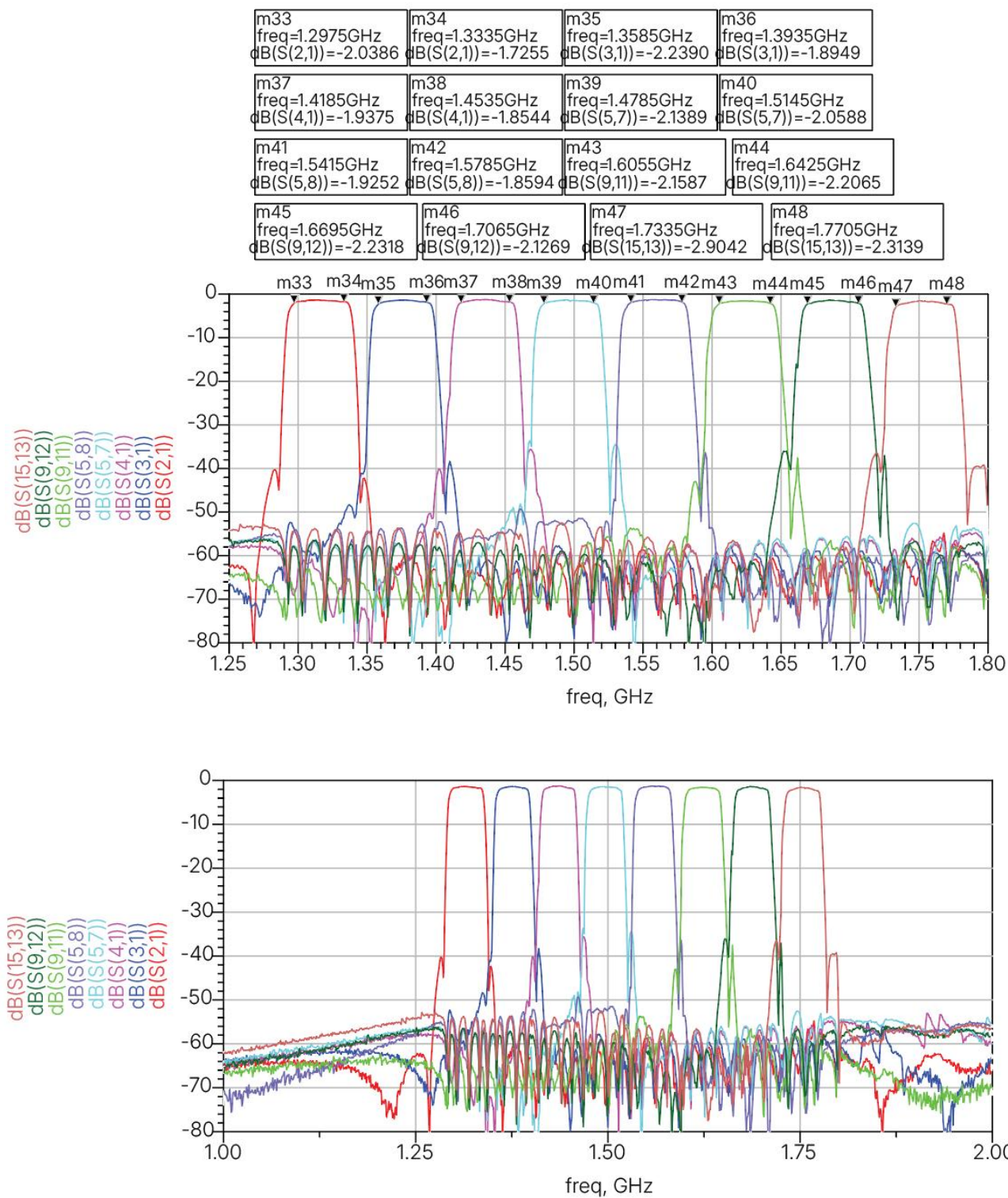
Brand Name	SHOUFEI
Part Number	SMS8078
Batch Number	MMYDDXX

Batch Numbering Logic

Month MM	Year Y	Day DD	Suffix Digit XX
01	A: 2023	01	01
02	B: 2024	02	02
03	C: 2025	03	03
...	...	...	...
12	Z: 2049	31	99

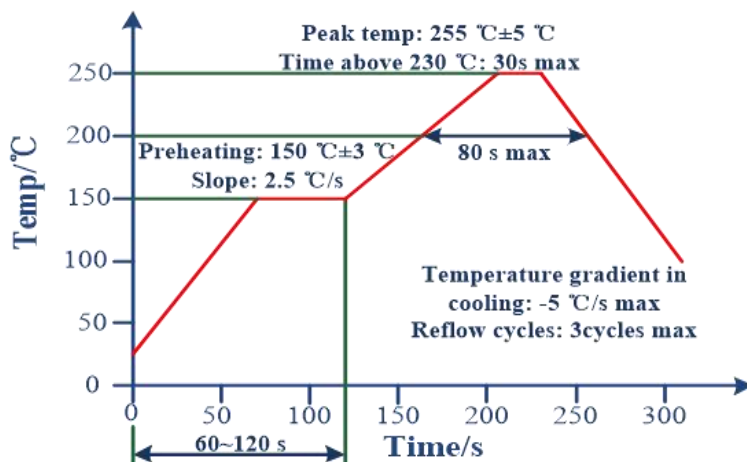


Frequency Characteristics @ 25°C





Reflow Profile



Precautions

1. Acoustic wave devices must not be exposed to or used in contact with any type of fluid, including but not limited to water, oil, and organic solvents.
2. Do not operate the device outside the recommended operating temperature range, and avoid abrupt temperature changes, which may cause permanent degradation of device performance.
3. Strictly control the soldering temperature and duration during soldering operations; never leave the soldering iron in contact with the device body.
4. Acoustic wave devices are sensitive to electrostatic discharge (ESD). Adequate ESD protection measures must be implemented during handling and storage to prevent electrostatic damage.
5. Ultrasonic cleaning is strictly prohibited. Ultrasonic vibration may cause irreversible damage to the device's internal resonant structure.
6. This device is fully compliant with the EU RoHS Directive.