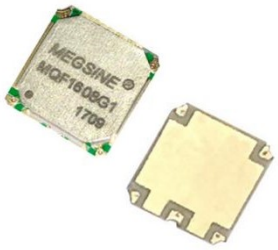
MQF1608G1

4-Phase Antenna Feeder

Features

1. Frequency range 1150 – 1650 MHz
2. 4-Phased Antenna Feeder, 6dB (0°, 90°, 180°, 270°)
3. Low insertion loss type. 0.6 dB
4. RoHS compliance (Pb-Free)



Applications

1. GNSS antenna
2. Satellite phone antenna

Descriptions

MQF1608G1 is a 4-Phase antenna feeder with stable performance in different temperatures. high conductivity metal conductor enable the MQF1608G1 to minimize insertion loss and improve durability for thermal stabilization and electricity。All the components are tested 100%.

Electrical Characteristics

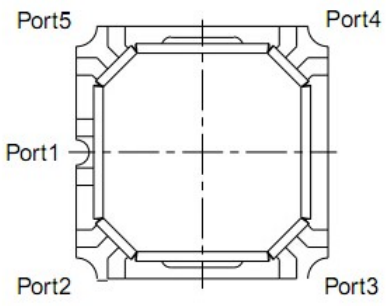
Table1. MQF1608G1 Environmental Characteristics

Item	Min.	Type.	Max.	Unit
Frequency	1150		1650	MHz
Amplitude Balance	-1.0	0.35	+1.0	dB
Insertion Loss		0.6		dB
Return Loss	17	20		dB
Isolation	18	20		dB
Phase Balance	-8		+8	Degree
Operating Temp.	-55		105	°C

All the above data are based on specified demo board and tested in 25° environment.

Port Configurations

Figure 1. MQF1608G1 (Top View)



MQF1608G1

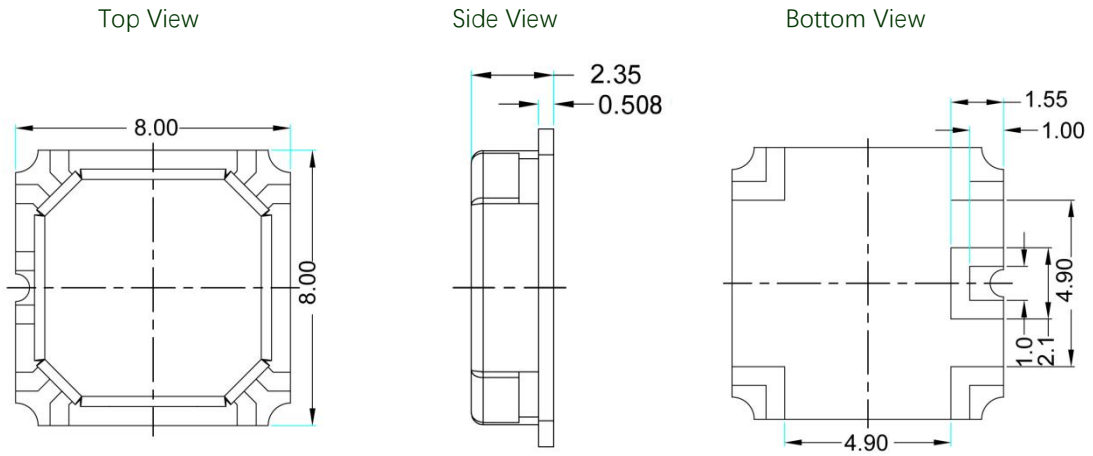
4-Phase Antenna Feeder

The MQF1608G1 port configurations depending on how input signals are split. The Case 1, Case 2, Case 3, and Case 4 configurations mean that one input signal is split into two output signals. When port 1 is defined, the other ports are defined automatically

Table2. MQF1608G1 Port Configurations

Port 1	Port 2	Port 3	Port 4	Port 5
Input	Output	Output	Output	Output
Input 0°	Output1 -6 dB, 0°	Output2 -6 dB, -90°	Output3 -6 dB, -180°	Output4 -6 dB, -270°

Outline Drawing



Unit: mm

Typical Performance (25°C, 1150-1650 MHz)

Figure2. MQF1608G1 Return Loss (S11)

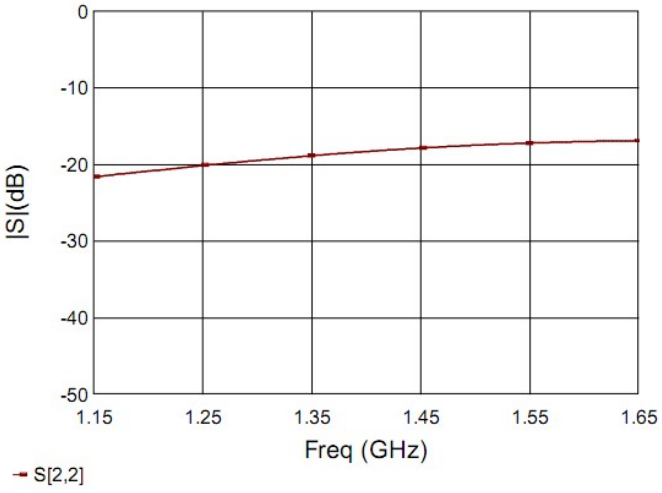


Figure3. MQF1608G1 Return Loss (S22)

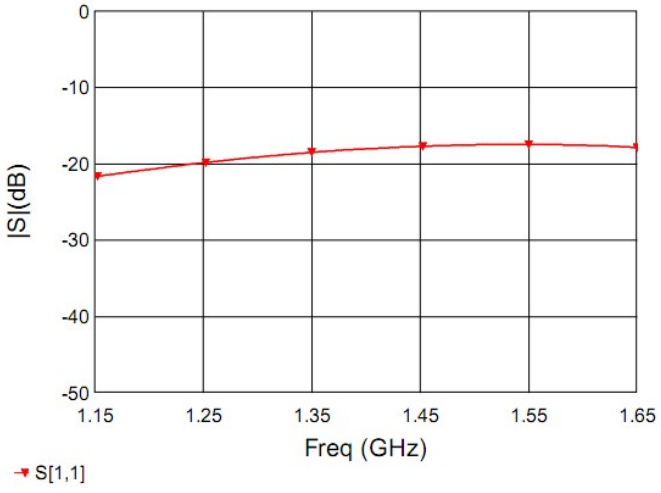


Figure4. MQF1608G1 Return Loss (S33)

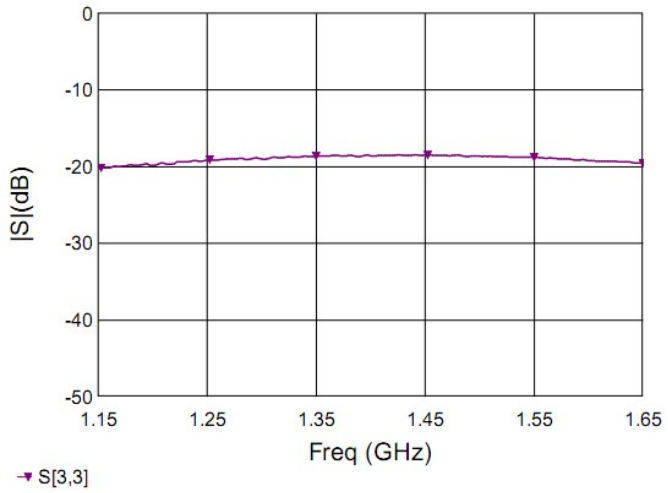


Figure5. MQF1608G1 Return Loss (S33)

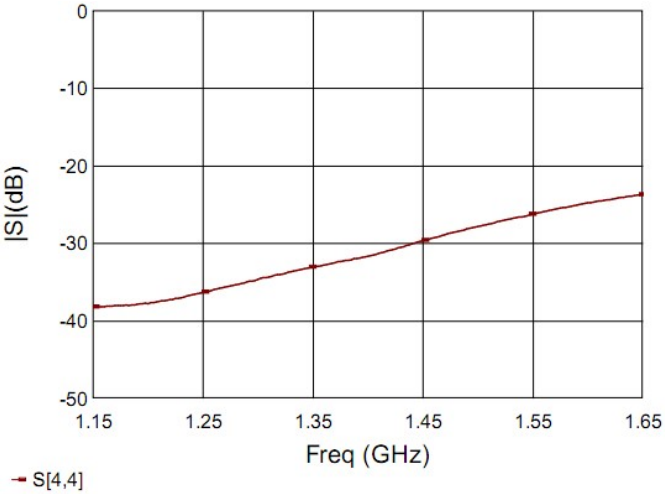


Figure6. MQF1608G1 Return Loss (S55)

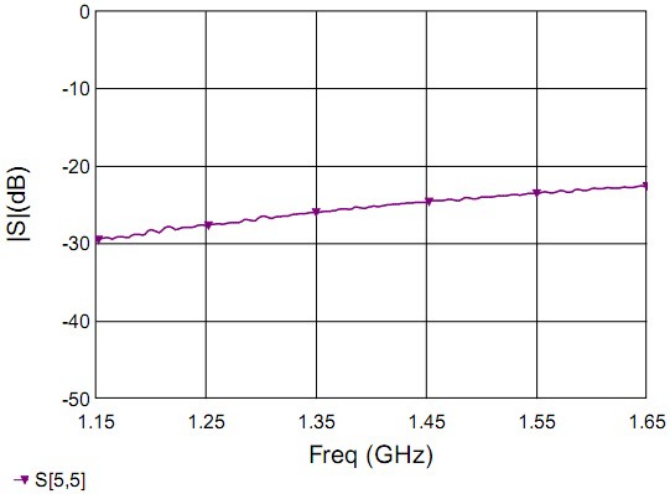


Figure7. MQF1608G1 Insertion Loss (S21)

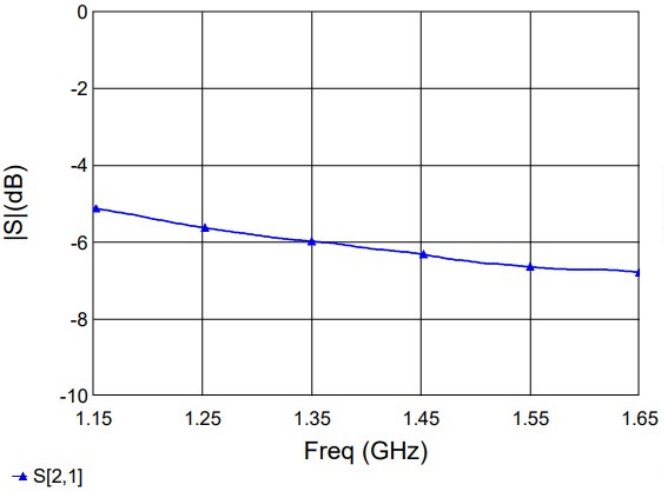


Figure8. MQF1608G1 Insertion Loss (S31)

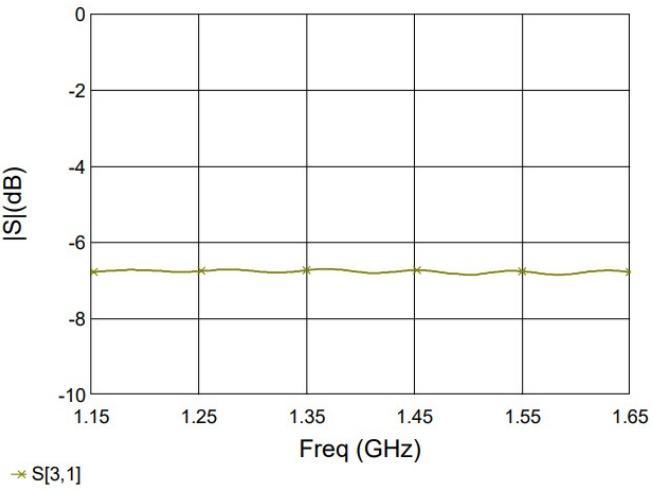


Figure9. MQF1608G1 Insertion Loss (S41)

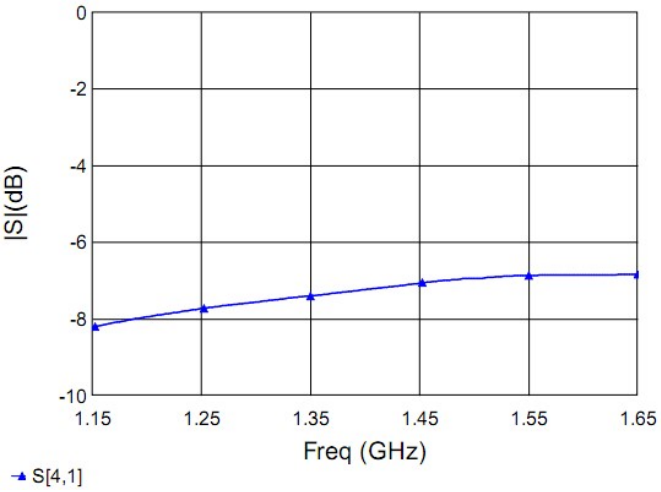


Figure10. MQF1608G1 Insertion Loss (S51)

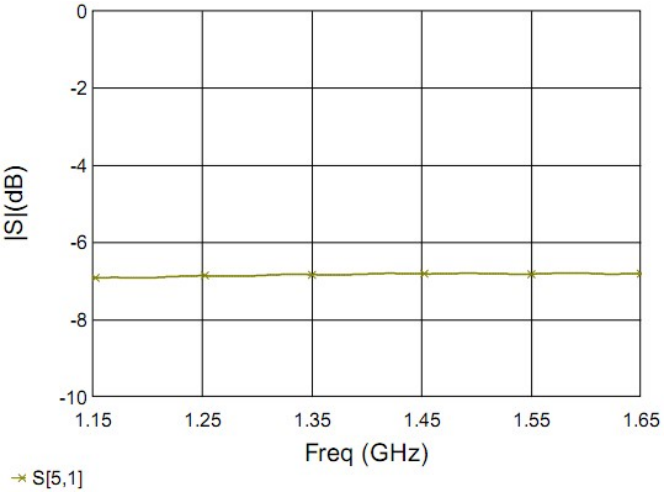
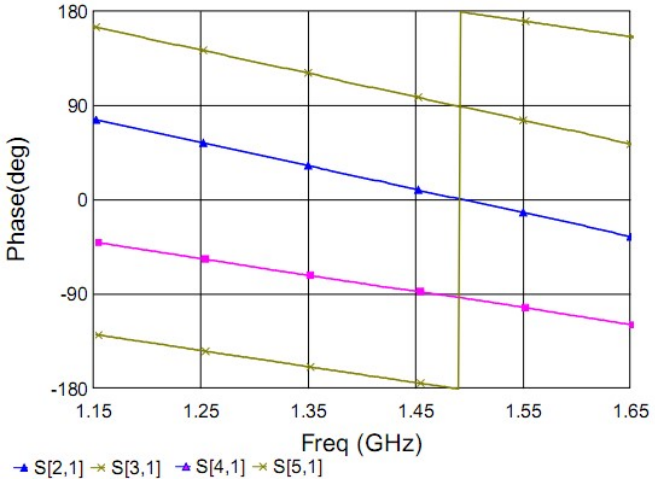
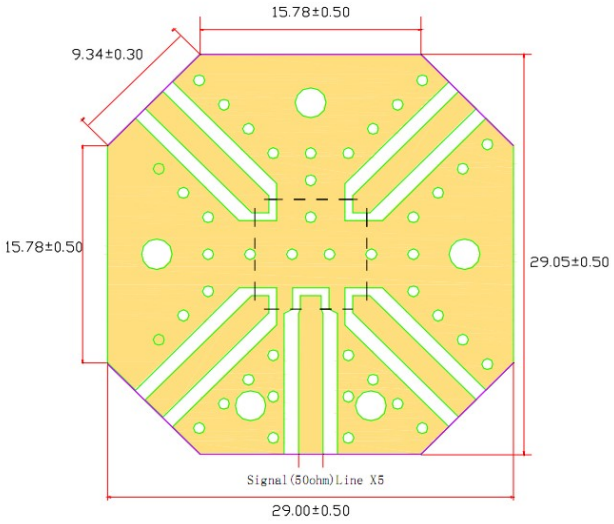


Figure11. MQF1608G1 Phase



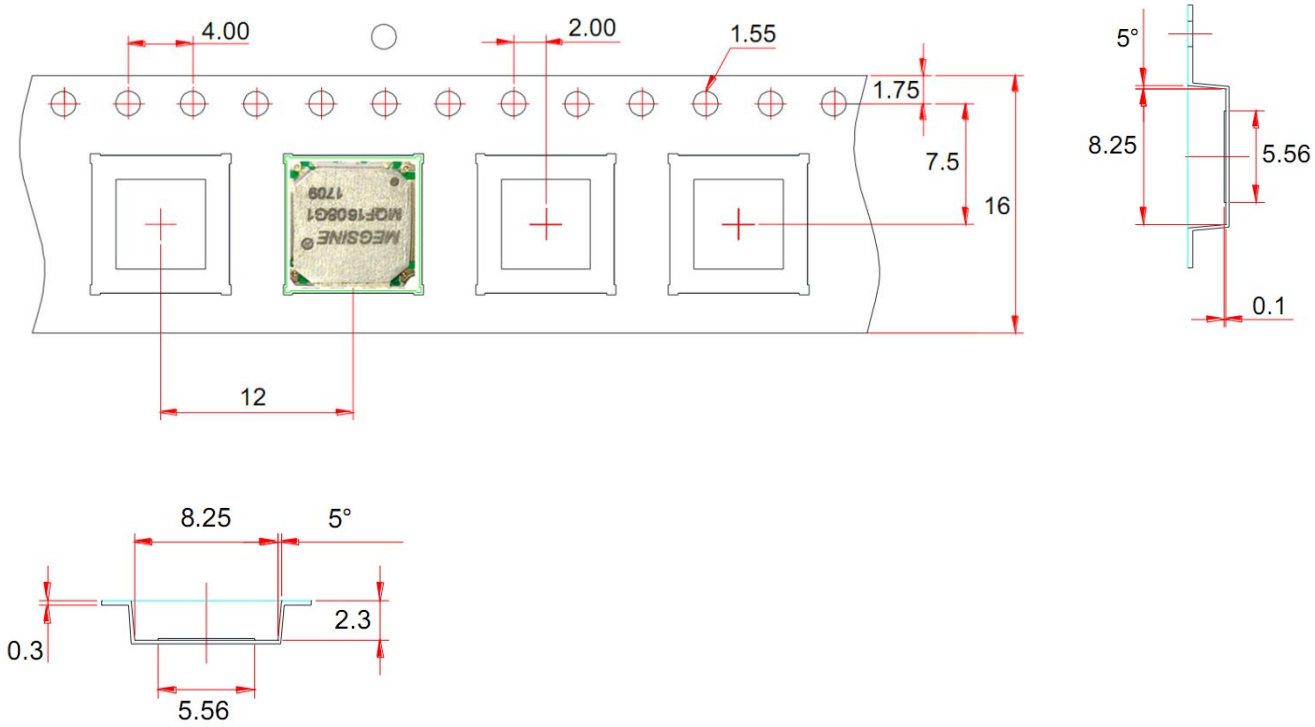
Recommended Land Pattern

Figure12. MQF1608G1 Recommended Land Pattern



Packaging and Ordering Information

Figure13. MQF1608G1 Packaging Specifications



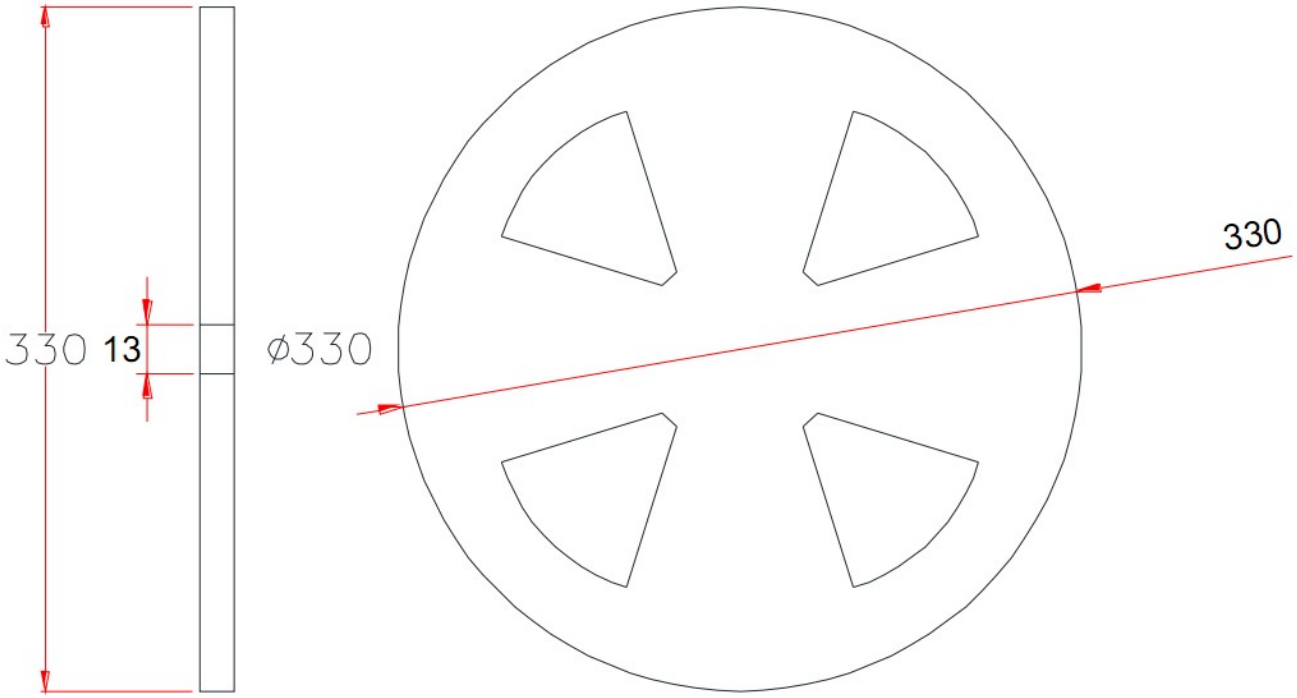
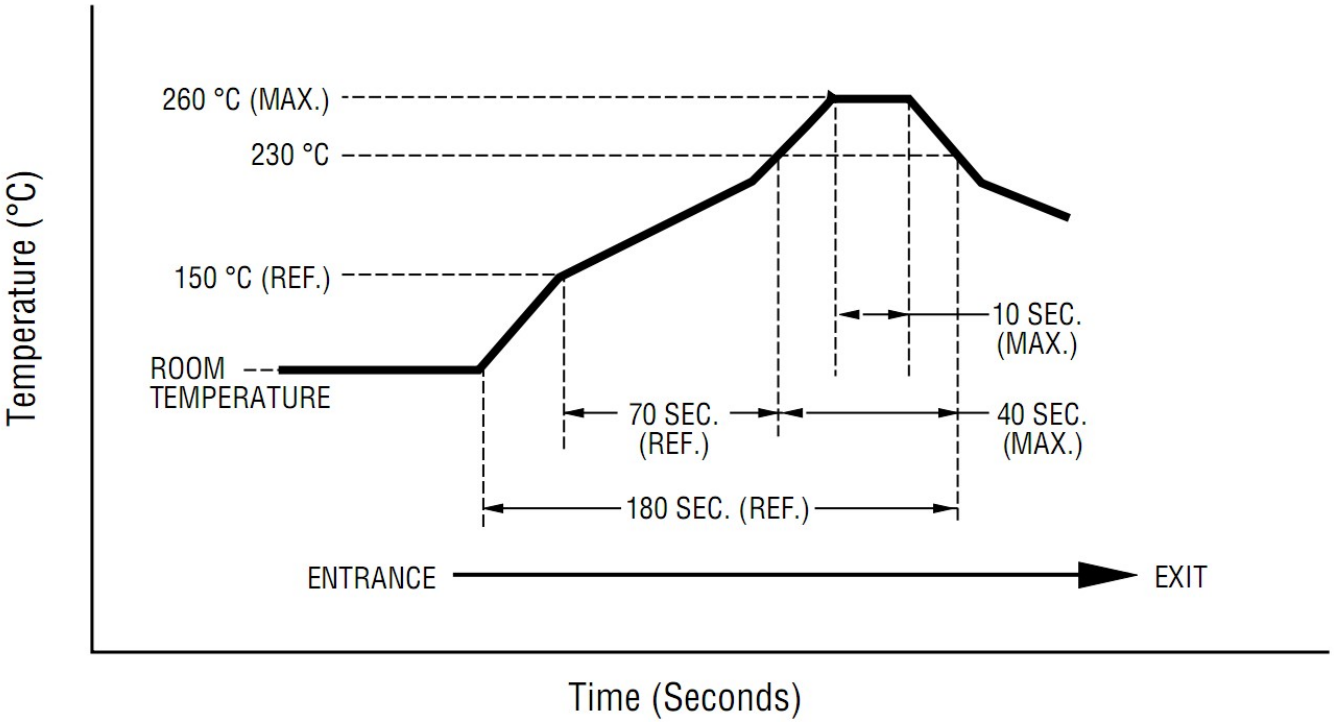


Table 3. MAR100RD3 Ordering Information

Device	Package	Reel	Shipping
MQF1608G1	8*8mm	7''	2500 Reel

Recommended Reflow Solder Profile

Figure14. MQF1608G1 Recommended Reflow Solder Profile



Revison	Description	Date
Rev0	Preliminary	2017/5/29
Rev0	Update Typical Performance	2021/7/30