

Hardware Features

Chip Type

Supplier
Chip Codes
Electrical Characteristics
Operational Temperature Characteristics
Memory Size available for program and data

Industrial Grade

Starchip
SCM392G
1.6V to 5.5V
-40° to 105°C
136K/256K

Standard Grade

Samsung
S3FS9FG
1.6V, 3V and 5V
-25° to 85°C
340K/440K

NVRAM characteristics

Endurance cycles (min) @ 25°
Data retention (min) @ 25°
Vibration
Sector/Bank erase time
Page write/erase time

Min. 200MM read/write cycle
25 Years
Passes JESD22-B103
1.5ms/3ms
1.5ms/0.4ms

Min. 500K read/write cycle
25 Years

1.5ms/3ms
1.5ms/0.4ms

Software Features

Platform

Technology
UICC
Java Card
Global Platform

2G/3G/4G/LTE
Release 8
2.2.1 or higher
2.2.1

2G/3G/4G/LTE
Release 8
2.2.1 or higher
2.2.1

Supported Applications

SIM
USIM
ISIM
HPSIM

Release 4
Release 8
Release 8
Release 8

Release 4
Release 8
Release 8

OTA Capabilities

Remote File Management
Remote Applet Management

Release 8
Release 8

Release 8
Release 8

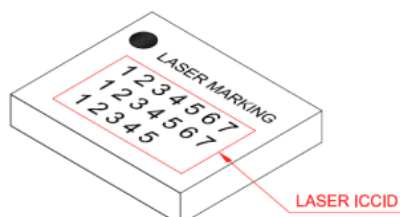
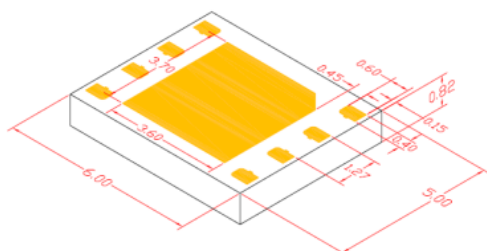
SIM Card Physical Characteristics

Embedded Form Factor (MFF2)

Module Format
Size
Standard
Fitting
Transportation

MFF2 (QFN8) embedded.
6 x 5mm*, (height: 0.75-0.82mm)
TS 102.671 - standardized format
Soldered to circuit board
On trays/reels/boxes

Technical Details (MFF2)



SIM Card Physical Characteristics



2FF - Mini SIM

Height: 25mm
Width: 15mm
Thickness: 0.76mm



3FF - Micro SIM

Height: 15mm
Width: 12mm
Thickness: 0.76mm



4FF - Nano SIM

Height: 12.3mm
Width: 8.8mm
Thickness: 0.67mm

Embedded SIM QNF8 Pinout

