

## **BUILT TOUGH**

Wireless Machine-2-Machine (M2M) solutions in many industries often have specific environmental and form factor requirements. To help you tackle these challenges, we provide an industrial strength, miniaturised M2M SIM chip that is surface-mountable.

The M2M SIM chip is highly robust and comes in the industrial form factor MFF2 with a SON-8/VQNF8 package for automated soldering directly onto the circuit board of a wireless M2M device. With increased resistance against corrosion, vibration and extreme temperatures, the SIM chip is ideal for industrial M2M applications in harsh environments, motor vehicles or heavy machinery. The increased reliability and life expectancy of the M2M SIM chip reduces the risk of potential failures and the time and cost of replacement.

As with our M2M SIM cards, you can easily provision, manage and troubleshoot your SIM chips remotely using the advanced tools of the Telstra Wireless M2M Control Centre platform.

## Fast Facts - M2M SIM Chips

- Higher temperature resistance for operation in demanding environments
- Higher resistance against corrosion, vibration and shock
- Longer life expectancy and data retention (10 years +)
- Ideal for M2M applications in motor vehicles and heavy machinery
- Surface mounting increases contact reliability and prevents SIM theft
- Allows "pick & place" automated assembly



	Telstra M2M SIM Chip – Technical Specifications	
	Standard	Auto Grade
Form Factor	MFF2	MFF2
Dimensions	6mm x 5mm	6mm x 5mm
Environmental	Extreme conditions of vibration, temperature and operational life	Extreme conditions of vibration, temperature and operational life
Operational Temperature	-40°C to +105°C	-40°C to +105°C
Anti-Corrosion	<b>✓</b>	<b>✓</b>
Endurance	Typical 500,000 write/erase cycles	Typical 500,000 write/erase cycles
Data Retention Time	Expected typical min. 10 years based on operational usage	Expected typical min. 17 years based on operational usage
Flash Memory	64kB	64kB
Software Features	Telstra specific security algorithms, Java Card™ API, Standard file system	Telstra specific security algorithms, Java Card™ API, Standard file system
Maintenance & Care	SIM data download and software updates via Telstra OTA (Over-The-Air) server	SIM data download and software updates via Telstra OTA (Over-The-Air) server
Vibration & Climatic/Limits	Complies to ETSITS 102.671 – Vibration VA automotive standard	Complies to ETSITS 102.671 – Vibration VA automotive standard, AEC Q100
Package	SON-8/VQNF8 package for "pick & place" automated assembly	SON-8/VQNF8 package for "pick & place" automated assembly
Typical M2M Applications	Metering, motor vehicles, heavy machinery, SCADA	Metering, motor vehicles, heavy machinery, SCADA
Shipment	On tape reels in vacuum sealed, anti-static moisture-barrier bags	On tape reels in vacuum sealed, anti-static moisture-barrier bags
Storage Recommendations	Unopened bags can be kept for a maximum of 12 months from the day of manufacture at maximal 40°C/90% relative humidity. Once a bag has been opened, the chips contained have to be soldered within 168 hours.	Unopened bags can be kept for a maximum of 12 months from the day of manufacture at maximal 40°C/90% relative humidity. Once a bag has been opened, the chips contained have to be soldered within 168 hours.

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