

## Product Selection Guide

This document and more in particular the table on the next page allows selecting the applicable Q-star Test measurement module in function of application and module characteristics.

### Notes (applicable to complete document):

- IDD stands for device supply current. IDD is the general notation for the current drawn by a particular circuit from its power supply.
- ISS stand for device ground current. ISS is the general notation for the current flowing from a particular circuit's ground pin(s) to the system ground.
- IDDQ stands for Quiescent supply current. This is the current drawn by a circuit or the digital part of a circuit when the circuit is in a stable operating condition. For digital CMOS circuits with no embedded memories, no floating nodes and no pull-ups or pull-downs active the IDDQ corresponds to the actual leakage current drawn by the circuit. For other circuits the IDDQ is the combination of leakage and bias currents.
- IDDT stands for Transient supply current, this is the current drawn by a digital circuit or the digital part of a mixed signal circuit when it is switching from one state to another, also called the switching current.
- IDDA stands for analog supply current, being the current drawn by an analog circuit or by an analog portion of a mixed signal circuit. This can as well be the current drawn when the circuit is active or when the circuit is in a non-active mode of operation.
- ISSQ measurement solutions are Device under Test (DUT) supply voltage independent and can be applied for any DUT supply level (low voltage – high voltage)
- Obsolete products (only maintained for and available to existing customers which are already applying these modules) are shown in blue and italic.
- The QI-0003 & QI-0004 modules contain the QD-1000.



	QA-1000	QA-1000HC	QD-1000	QI-0003	QI-0004	QD-1010Lite	QD-1010HCLite	QD-1011Lite	QD-1011HCLite	QD-1010	QD-1011	QD-1012	QD-1013	QD-1020	QD-1022	QD-1023	QD-1030	QD-1040	QD-1010HC	QD-1011HC	QD-1013HC	QD-1020HC	QD-1023HC	QD-1030HC	QT-1410	QT-1411
• Module Output																										
o Analog output voltage																										
o Digital pass/fail output																										
o Digital measurement/data processing result																										
• Data processing																										
o Data comparison																										
o Advanced data processing capabilities																										
o Advanced IDD/ISSX optimised																										
• On-board Sense Line Switching capabilities																										
• Pass/Fail reference setting																										
o Analog																										
o Digital																										
• Mounting																										
o Horizontal																										
o Vertical																										
• Multi-site application optimised																										
• Measurement type																										
• Dynamic IDD measurements																										
▪ $IDD \leq 50\text{mA}$ , $f_{\text{max}} = 1.5\text{MHz}$																										
▪ $IDD \geq 50\text{mA}$ , $f_{\text{max}} = 5\text{MHz}$																										
• Quiescent IDD (IDDQ) or standby IDD measurements																										
▪ Measurement range																										
• $IDD < 100\mu\text{A}$																										
• $100\mu\text{A} \leq IDD \leq 10\text{mA}$																										
• $10\text{mA} < IDD \leq 30\text{mA}$																										
• $50\text{mA} < IDD \leq 1\text{A}$																										
• $IDD \geq 1\text{A}$																										
▪ Voltage range																										
• $V_{\text{DUT}} \leq 0.5\text{V}$																										
• $0.5\text{V} \leq V_{\text{DUT}} \leq 7\text{V}$																										
• $V_{\text{DUT}} \geq 7\text{V}$																										
• Quiescent ISS (ISSQ) or standby ISS measurements																										
• Transient IDD (IDDT) or switching IDD measurements																										
▪ IDDT peak measurements																										
▪ IDDT charge measurements																										
▪ Large data storage capabilities																										