

# QUALIFICATION TEST REPORT

## 40 WAYS MQS PLUG CONNECTOR

**tyco**  
 Electronics  
 AMP – Italia Spa

						DR G.P. Cattaneo	NUMBER 501-20060	REV A
						CHK G.P. Cattaneo		
						APP A.Genta		
A	-	G.P.C.	25/07/99	G.P.C.	28/07/99	NAME 40 WAYS MQS PLUG CONNECTOR		
REV LTR	REVISION RECORD	DR	DATE	CHK	DATE			

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**LABORATORY**

**QUALIFICATION TEST REPORT**

**CONFIDENTIAL FOR CUSTOMER**

**40 POS RECEPTACLE CONNECTOR FOR MICRO QUADLOK SYSTEM CONTACT**

PRODUCT PART NUMBERS	284150-1/-2/-3/-4	REC HOUSING
	284229-1/-2	FRAME/COVER
	928999-1	MQS REC CONTACT ( 0,35-0,5 SQ MM WIRE )
	963715-1	MQS REC CONTACT ( 0,75 SQMM WIRE )

**FOREWARD**

TESTING HAS BEEN MADE ACCORDING TO THE FIAT PROCUREMENT SPECIFICATION 9.91320.02 AND FIAT TEST SPECIFICATION 7.Z8260, ONTO 10 SAMPLES EACH TEST TYPE, MATED WITH THE MALE COUNTERPART.  
EACH TEST WAS PERFORMED WITH THE PARAMETERS AS REQUIRED IN THE A.M. SPEC.

<b>TEST TYPE</b>	<b>RESULTS</b>	<b>COMMENTS</b>
Visual Examination	No defects detected	Test passed
Connector mating Force	From 32 to 41 N Aver. 36,8 N	Test passed, ( $\leq 70$ N)
Unmating Force	From 25,3 to 34,1 N Aver. 28,1 N	Test passed ( $\leq 70$ N)
Contact Extraction Force (Primary Locking Only)	From 74,1 to 125,5 N Aver. 88,77 N (*)	Test passed ( $\geq 30$ N)
Contact Extraction Force (Primary plus Secondary Locking SL2 type)	From 94,5 to 155,5 N Aver. 108,7 N (*)	Test passed ( $\geq 60$ N)
Connector pull-out force	Tested samples withstood the applied axial load without loosing receptacle housing from header	Test passed ( $\geq 100$ N)

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TEST TYPE	RESULTS	COMMENTS
Accelerated Aging 200 hr +105°C	No deformation nor cracking of plastic parts	Test passed
Contact Insertion Force	From 2,47 to 5,62 N Aver. 3,84 N (**)	Test passed ( $\leq 10$ N)
Closing Force of secondary lock (SL2 type) with one or more terminals wrongly inserted	Under the applied load the receptacle housing can't be inserted into the frame.	Test passed ( $\geq 80$ N)
Resistance of lever to transverse force	No damages or coming out of the lever from its seat	Test passed
Lever lock uncoupling load	From 87,27 to 92,72 N Aver. 90,17 N	Test passed ( $\geq 70$ N)
Polarization Effectiveness	No electrical continuity detected	Test passed
Insulation Resistance	(between adjacent contact pairs At 500 V x 1 min)	Test passed ( $\geq 10$ Mohm)
Dielectric Breakdown	(between adjacent contact pairs) No discharge observed when submitted to 1000 V ac x1min.	Test passed ( $\geq 1000$ V)
Connector Mechanical Retention (Kojiri Test with 100N applied load)	No damage on the coupling system, no connection uncoupling nor microinterruptions of electrical continuity	Test passed

(\*) Ref. Qualification Test Report 501-20025

(\*\*) Ref. Report on Additional Tests to QTR 501-18004 (18 & 26 pos. MQS Connectors)

For all the remaining features, see the AMP Germany MQS contact QUALIFICATION TEST REPORT 501-18004.

3. VALIDATION

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Approved by:

Project Engineering Manager    A. GENTA

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