



Document Title: SCD

Document Number: PD0000X

Description: Blank Source Control Drawing

Doc: Process Doc

Confidential

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BS EN ISO 9001:2000 accreditation  
AS9100 REV B  
Certificate No. RS 21690  
SC21 Signatory



TM

SCD #  
Source Control Drawing  
Upscreening/Manufacturing Specification  
P/N

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1. REFERENCE DOCUMENTS

Department of Defence, Washington, DC 20363-5100, USA

Test Method and procedures for Microcircuits  
General Specs for Hybrids  
Sort, incoming and outgoing  
Inspection procedures

MIL-STD-883 (latest issue)  
MIL-PRF-38534  
MIL-PRF-38535 supersedes MIL-M-38510  
MIL-STD-750  
JEDEC Standards

2. INTRODUCTION/PURPOSE

This document specifies the: Screening/ Manufacturing /Procurement.  
In brief the Part Description is:

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Issue:	Date:	Approval:	Dept:
1	01/02/10	MS	Eng

**3 SOURCE OF PARTS**

This section provides an overview of the companies involved in the manufacture, screening and supply of the part. Original procurement of parts shall be from the address specified in section 3.2.

**3.1 BASELINE COMPONENT**

Original Manufacturer:                      Manu:  
Part number:                                      P/N:

The vendor shall determine that the die size, mask and if possible the manufacturing process has not changed since the manufacture of the baseline component. This shall be done prior to acceptance of any order by the vendor. If such a change has occurred, written notification shall be given to the customer the changes and possible alternatives. The vendor shall take no further action until a way forward has been agreed with the customer.

**3.2 ORIGINAL PART MANUFACTURER**

The original part: die are/were produced by:

Address:


The donor part number is:

**3.3 ASSEMBLY/MANUFACTURING/SCREENING**

The above parts are then assembled and screened by:

Classified Disclosure under NDA or disclosed as:


**3.4 SUPPLIER**

The assembled/screened parts shall be procured from:

Force Technologies Ltd                      Tel: +44(0)1264 731200  
Ashley Court,                                      Fax: +44(0)1264 731444  
Henley, Marlborough,Wilts, UK  
SN8 3RH

The Force Technologies part number (Ordering Code) is:

**3.5**

**Part Number breakdown**

	=	
	=	
	=	
	=	
	=	

**4.0 RESOURCES**

Manufacturing Processes, Assembly, Screening and test equipment listings available for inspection upon request.

**Note.**

- /I** = Parts are assembled and tested to Extended temperature -40oC to +85oC
- /B** = Parts are Based on METHOD 5004 screening procedures and Mil-Std-883F Test methods.
- /B5** = Parts are Based on Control Procedures for:
  - GroupA (Electrical)
  - GroupB (Enviromental)
  - GroupC (Die related)
  - GroupD (Package related) Tests.
 It is based on METHOD 5005 Conformance procedures and Mil-Std-883F Test methods

Add suffix to part number example: FTxxxxXX/I FTxxxxXX/B or FTxxxXX/B

#### 4.1 SCREENING

The device shall be screened as specified in the table below. If Mil then NON-COMPLIANT but in accordance with Mil-Std-883. Manufactured batches shall have Lots tests carried out in accordance with Mil-Std-883 (Mil-M-38510)

Screening	Method	/I	/B (5004)	/B05 (5005)	QA test condition	UpScreen only
Visual Inspection Kit	Incoming and Outgoing Inspection Procedures	100%	100%	100%		100%
Die Attach	JM7000 or equivalent	100%	100%	100%	<b>2019/2012</b>	
Wire Bond	1mm Alum/Gold	100%	100%	100%	<b>2011C/D</b>	
Internal Visual (Pre-Cap)		100%	100%	100%	<b>2010 Cond B</b>	
Stabilisation Bake		100%	100%	100%		
Temperature Cycling			100%	100%	<b>1010, test condition C</b>	
Centrifuge				100%	<b>2001E</b>	
Constant acceleration			100%	100%	<b>2001, test condition E (min)Y1 orientation</b>	
Seal a. Fine b. Gross		100%	100%	100%	<b>1014 Cond A or B Cond C</b>	
Visual inspection		100%	100%	100%	<b>FT WIP documentation</b>	100%
Interim (pre-BI)Electrical	In accordance with applicable device specification. or as defined in QM p4.1.1		100%	100%		100%
Burn-in test	Dynamic		100%	100%	<b>1015, 160 hours at 125°C minimum</b>	
Percentage defective allowable (PDA) calculation	Review		5%	QCI		
Final GrpA Electrical Tests A)Static Tests: 25oC (subgrp.1) Max.& Min. subgrp 2,3) B) Dynamic (Linear devices) 25oC (subgrp.4) Max.& Min. subgrp 5,6) C)Functional 25oC (subgrp.7) Max.& Min. subgrp 8) D) Switching (Digital devices) 25oC (subgrp.9) Max.& Min. subgrp 10,11)	In accordance with applicable device specification. or as defined in QM p4.1.1	100% -40oC +85oC	100% -55oC +125oC	100% -55oC +125oC	<b>5005 p2</b>	100% T min T max
External Visual		100%	100%	100%	<b>2009</b>	100%
Group B			-	100%	<b>2015/2003/2011</b>	-
Group C			-	100%	<b>1005</b>	-
Group D			-	100%	<b>2016/2004/1014/1011/ 1010/1004/2002/2007/ 2001/1009/1018/2025/2 024</b>	-
Marking & Inspect	As FT WIP documentation		100%	100%		100%
Data Preparation	As FT QA documentation		100%	100%		100%
Dry Bake store/ship	As FT WIP documentation		100%	100%	<b>JEDEC</b>	100%

4.1.1

**Test Parameters**


**Notes:**

2/ Part No. Data sheet included on .PDF copy.

**Additional manufacturing notes.**

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**5 CERTIFICATE OF CONFORMITY**

All batches of parts shall be supplied with certificates of conformity. The certificate of conformity shall reference the QM document and the lot travellers.

**5.1 FT C of C**

Screening specified in section 4 of this document.  
Force Technologies part number.

**6 PACKAGE DESCRIPTION**

Package:  
Pin-out:  
Finish: Hot Tined dip Mil-Prf-38534 Appendix E.  
Suffix LF= Pb free  
Devices shall be shipped in appropriate Anti-static transfer packaging, (carriers, tubes, trays,etc)  
Securing: leads, legs, pins & connections free from any distortion or deviation from original drawing.

**6.1 MARKING to meet Mil-Std-883 M2015**

Part number  
QM No  
Date Code  
Batch Code  
FT Logo

**7 TRACEABILITY (IF APPLICABLE)**

Traceability shall be provided by the date code printed on the top/bottom side of each device.  
ISO9002 traceability procedures to apply using batch codes.

**8 COMPONENT SELECTION**

**8.1 General**

No component or component supplier shall be changed without the express written consent of the customer(s), following the submission of evidence to justify that the replacement component will meet all required parameters, including radiation immunity.

**8.2 Nuclear Hardness** (Not applicable)

**8.3 Obsolescence**

Upon acceptance of an order the vendor becomes responsible for all component obsolescence until completion of that order. The vendor will inform customer of any PCN.

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