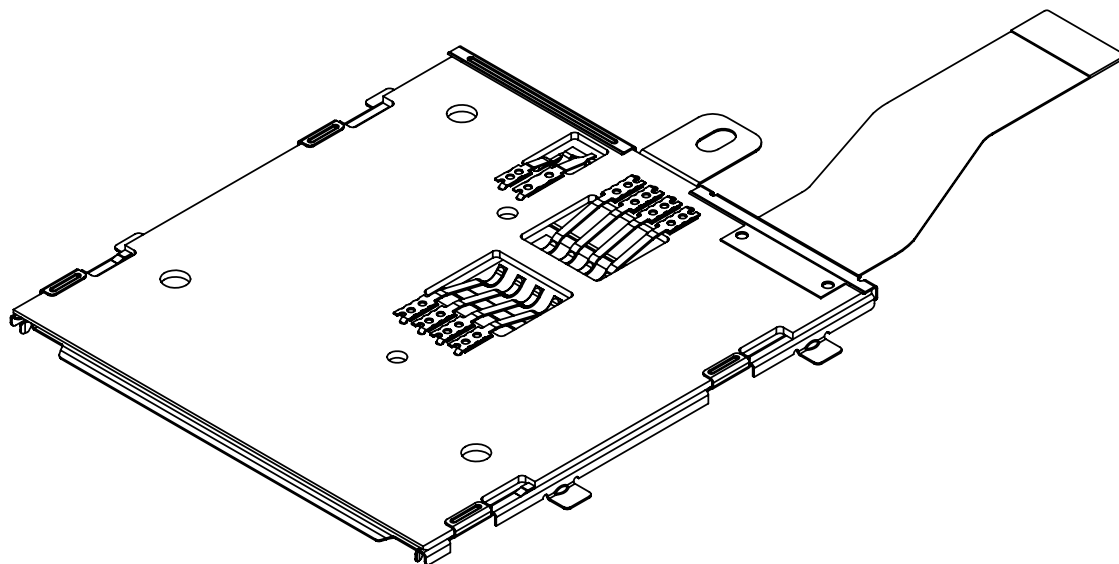




PRODUCT NO.	FPC	PACKAGING	COMPONENTS	LEAD FREE	PCB COLOR
10010556-002LF	10010559-002LF	10017475-02-002	ELEC. PARTS	YES	BLUE
10010556-003LF	10105325-001	10017475-02-009	N/A	YES	BLACK
10010556-004LF	10056226-002LF(FFC)	10017475-02-004	N/A	YES	BLUE
10010556-006LF	10058983-001LF	10017475-02-003	N/A	YES	BLACK
10010556-005LF	10056226-003LF(FFC)	10017475-02-004	N/A	YES	BLUE
10010556-007LF	10081578-001	10017475-02-006	N/A	YES	BLACK
10010556-008LF	10056226-004LF(FFC)	10017475-02-003	N/A	YES	BLUE
10010556-009LF	10083983-001(FFC)	10017475-02-008	N/A	YES	BLUE
10010556-010LF	10056226-005LF(FFC)	340391-202	N/A	YES	GREEN
10010556-011LF	10087561-001	10017475-02-007	N/A	YES	BLUE
10010556-012LF	10087561-002	10017475-02-007	N/A	YES	BLUE
10010556-013LF	10088568-001	10017475-02-006	N/A	YES	BLACK
10010556-014LF	10087561-004	10017475-02-004	N/A	YES	BLUE
10010556-015LF	10099689-001(FFC)	10017475-02-006	N/A	YES	BLACK
10010556-016LF	10056226-006LF(FFC)	340391-202	N/A	YES	GREEN
10010556-017LF	10056226-007LF(FFC)	340391-202	N/A	YES	GREEN
10010556-018LF	10107293-001(FFC)	10017475-02-004	N/A	YES	GREEN



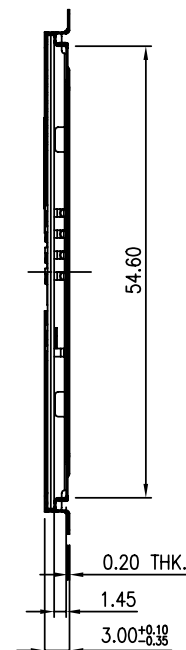
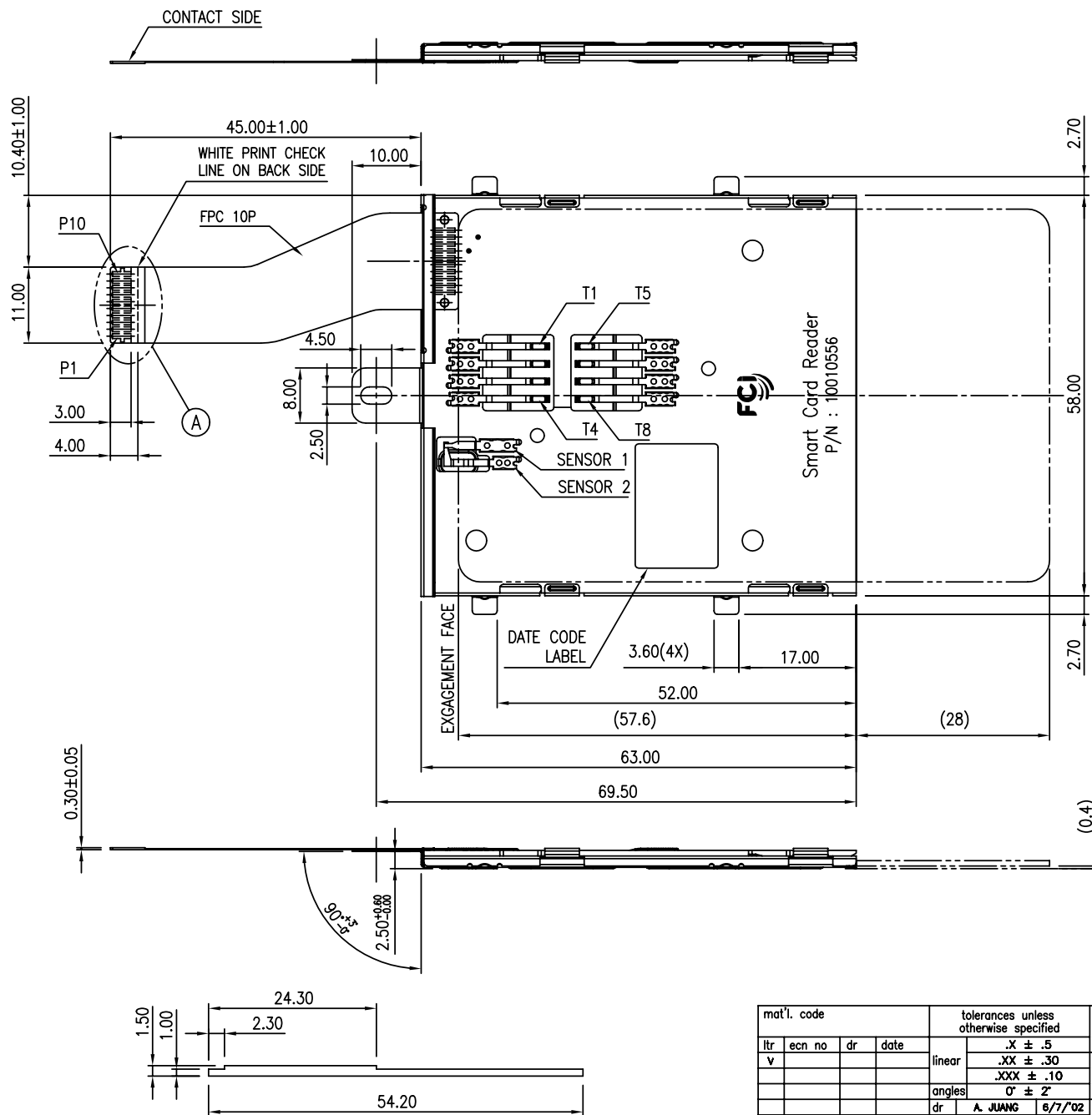
NOTE :

1. SMART CARD READER FOR LOWER PROFILE HEIGHT OF 3.0 mm.
2. TOTAL CIRCUIT RESISTANCE PER ONE LOOP SHALL NOT EXCEED 100 MILLIOHMS.
3. MATERIALS :
CONTACTS : COPPER ALLOY, GOLD OVER NICKEL ON CONTACT AREA.
TOP PCB : FR4.
COVER : STAINLESS STEEL.
4. ENVIRONMENT :
STORAGE TEMPERATURE : FROM -40°C TO 100°C.
OPERATION TEMPERATURE : FROM -40°C TO 85°C.

mat'l. code				tolerances unless otherwise specified			CUSTOMER COPY		FCI www.fciconnect.com		
ltr	ecn no	dr	date	linear	.X ± 0.5		projection 	title SMART CARD READER ASSEMBLY	product family 95	code —	
R	N08-0136	SH	07/07/08		.XX ± 0.30						
S	N08-0212	SH	10/06/08		.XXX ± 0.10						
T	N09-0224	SH	7/15/09	angles	0° ± 2°			size dwg no	A3	10010556	
U	N09-0306	SH	10/13/09	dr	A.JUANG 6/7'02						
V	N10-0058	SH	3/3/10	enrg	A.JUANG 6/7'02						
				chr	A.JUANG 6/7'02		scale NONE			sheet 1 of 20	
				appd	JENN.TSAO 6/7'02						
sheet index	revision sheet										

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SMART CARD	TERMINAL	FPC	FUNC.
C4	T4	P1	RFU
C3	T3	P2	Clock
C2	T2	P3	Reset
C1	T1	P4	Vcc
SENSOR 1	SENSOR 1	P5	SENSOR
SENSOR 2	SENSOR 2	P6	SENSOR
C5	T5	P7	Gnd
C6	T6	P8	Vpp
C7	T7	P9	I/O
C8	T8	P10	RFU

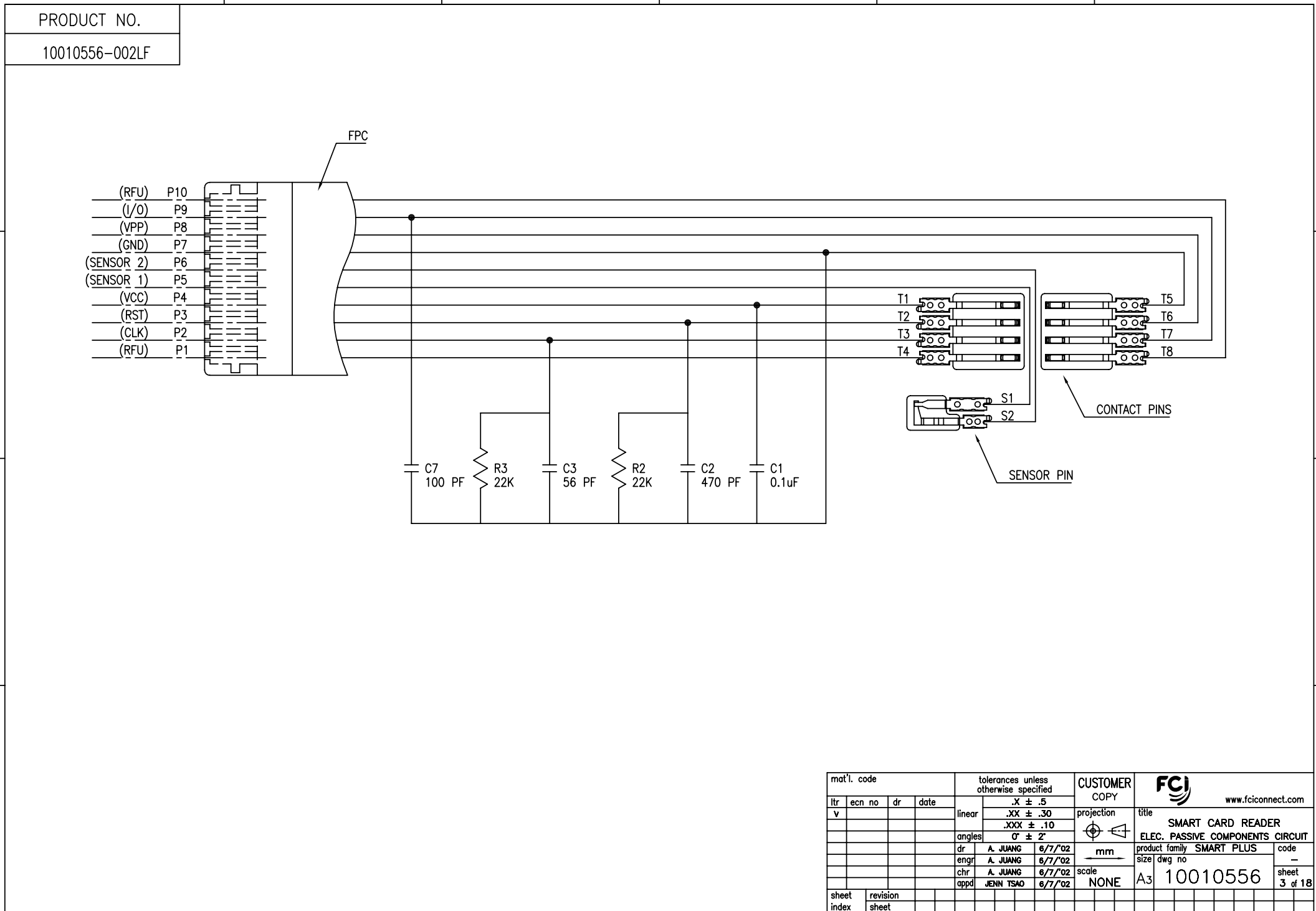


mat'l. code				tolerances unless otherwise specified		CUSTOMER COPY		 www.fciconnect.com		
itr	ecn no	dr	date	linear	.X ± .5	projection 	title SMART CARD READER ASSEMBLY			
v					.XX ± .30					
					.XXX ± .10					
					angles 0° ± 2°					
				dr	A. JUANG	6/7/02	 mm scale NONE	product family SMART PLUS		code
				engr	A. JUANG	6/7/02		size dwg no		—
				chr	A. JUANG	6/7/02		A3 10010556		sheet
				appd	JENN TSAO	6/7/02				2 of 18
sheet index		revision sheet								

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mat'l. code				tolerances unless otherwise specified			CUSTOMER COPY		FCI		www.fciconnect.com	
ltr	ecn no	dr	date	linear	.X ± .5			projection		title SMART CARD READER ELEC. PASSIVE COMPONENTS CIRCUIT		
v					.XX ± .30							
					.XXX ± .10							
				angles	0° ± 2°				mm	product family SMART PLUS		code
				dr	A. JUANG	6/7/'02	size			dwg no	—	
				enrg	A. JUANG	6/7/'02	scale			NONE	A3	10010556
				chr	A. JUANG	6/7/'02						
				appd	JENN TSAO	6/7/'02						
sheet index	revision sheet											

1

2

3

4

PART NUMBER
0010556-003LF

FINGER TAPE
(COLOR BLUE)

FFC

CHECKING LINE (BLACK)

11.00

4.0

SMART CARD
ENGAGEMENT FACE

1.45

53.60±1.00

5.3

33.50

1.30

2.20

58.50

64.50

72.45 REF.
(SMART CARD LENGTH)

1.30

2.20

53.98 REF.
(SMART CARD WIDTH)

56.90

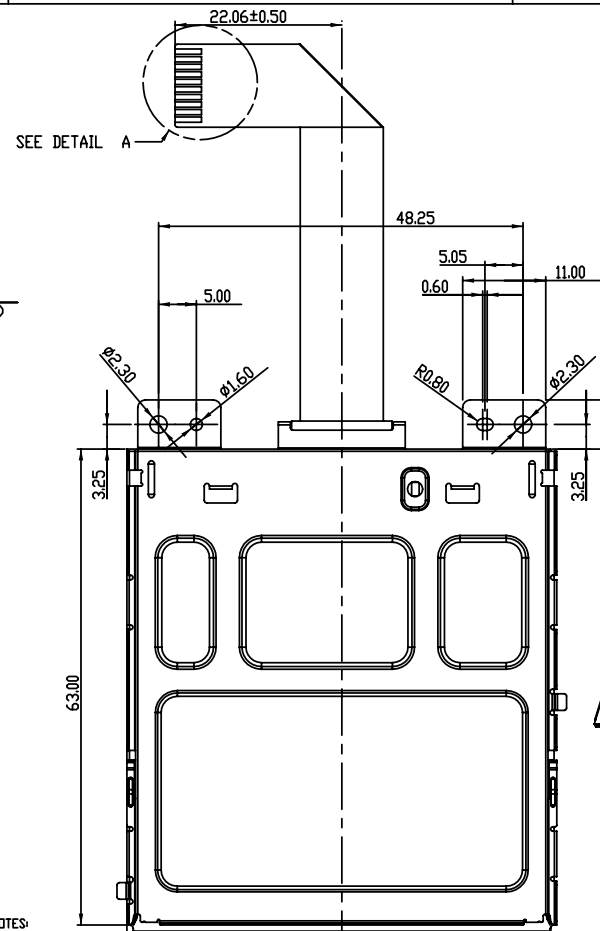
PPID LABEL
TYPE W

POLYESTER FILM
COLOR:BLACK
(THICKNESS:0.10mm)

3.0
(REF.)

3.1
(REF.)

(0.76)
(SMART CARD
THICKNESS)



NOTES:

1. Material:

1a. METAL SHELL: STAINLESS STEEL, T=0.20mm.

1b. GUIDE BLOCK: THERMOPLASTIC, UL94V-0.

1c. PCB: FR-4, T=0.80mm, UL94V-0.

1d. FLAT CABLE: POLYESTER, UL20624, NO PRINTING, PLATING SPEC AS BELOW:

CONTACT SIDE PLATING: Au 1-3 uin.

SOLDER SIDE PLATING: Pure Tin 50uin Min.

1e. TERMINAL: PHOSPHOR BRONZE, PLATING SPEC AS BELOW:

UNDERPLATING: Ni 100 uin Min.

CONTACT PLATING: Au 30 uin Min.

SOLDER TAIL: Pure TIN 75 uin Min.

2. LEAD FREE AND ROHS COMPLIANT PRODUCT.

3. CARD DETECTION SWITCH NORMALLY OPEN WITHOUT MATING CARD.

4. REFERENCE SPECIFICATION:

PRODUCT SPEC: GS-12-231.

PACKING SPEC: GS-14-829.

10	SENSOR 2	
9	SENSOR 1	
8	RFU8	C 8
7	RFU4	C 4
6	I/O	C 7
5	CLOCK	C 3
4	VPP	C 6
3	RESET	C 2
2	GND	C 5
1	VCC	C 1
PIN NO.	ASSIGNMENT	DEFINED BY ISO 7816

www.fciconnect.com

surface
x

tolerance std
x

projection
x

MM

TOLERANCES UNLESS OTHERWISE SPECIFIED

size A4

Scale 0.500

ECN *

Spec ref *

Product family

dwg no

10010556

Rev.

V

customer drawing

sheet 4 of

rev	ecn no	dr	date
1	PRE	BENNY	08/21/09
2	PRE	BENNY	08/25/09
U	N09-0306	SH	10/13/09
V	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-



title

ASSEMBLY

SMART CARD READER

catalog no

customer drawing

sheet 4 of

Rev.

V

customer drawing

sheet 4 of

Rev.

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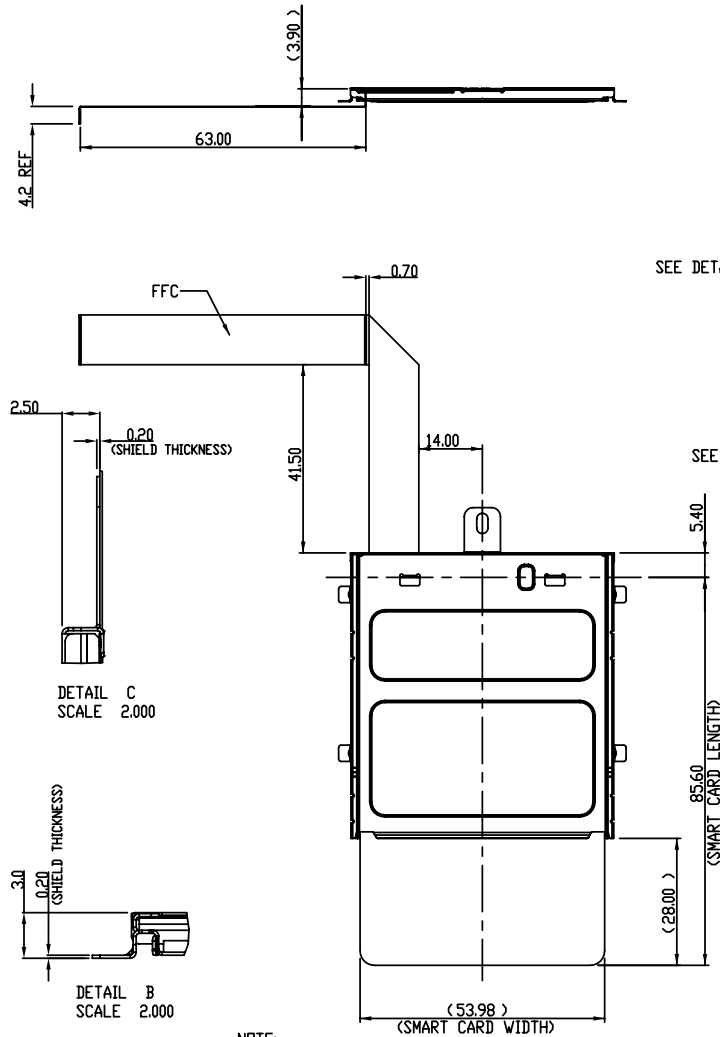
customer drawing

sheet 4 of

Rev.

V

PRODUCT NO
10010556-004LF



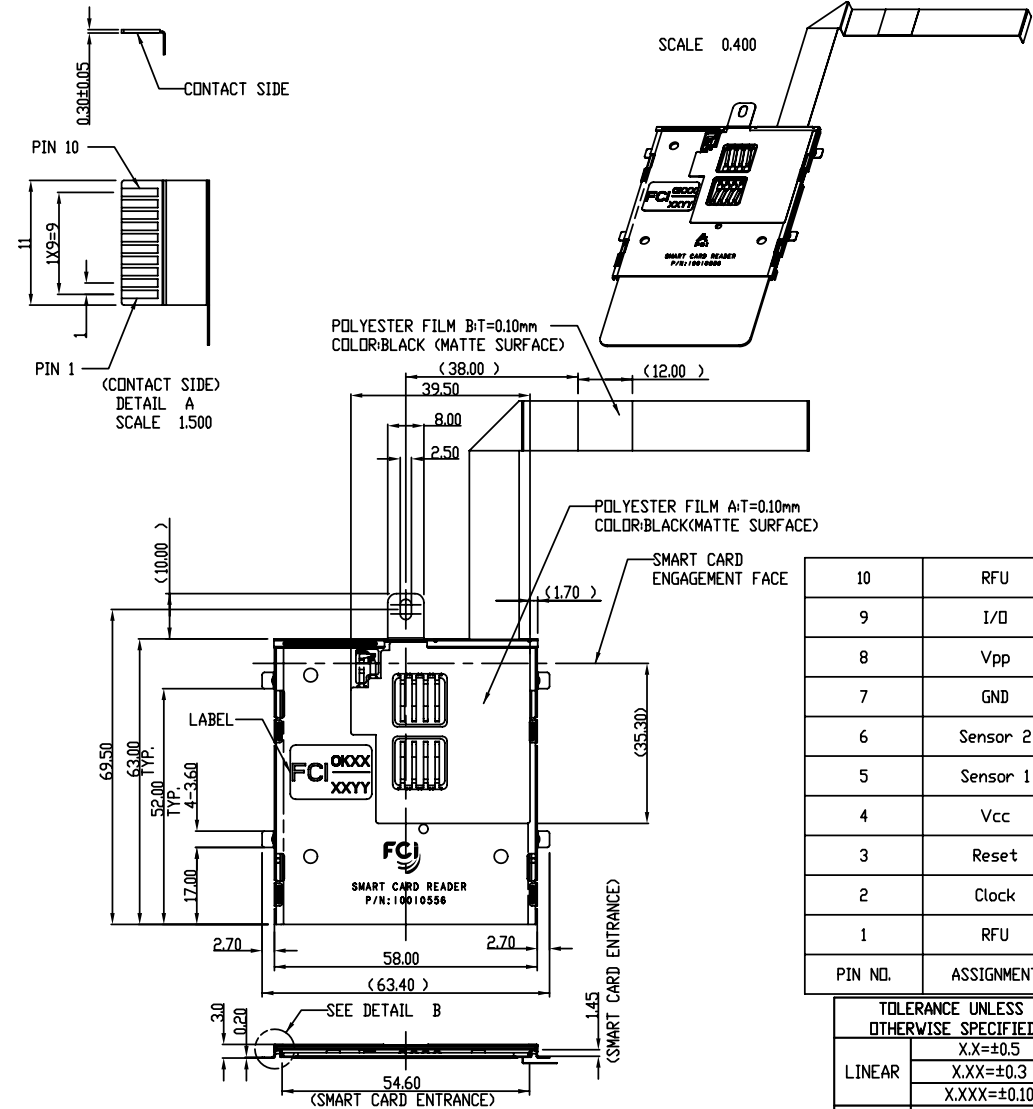
NOTE:

1. Material:

METAL SHELL: STAINLESS STEEL, T=0.20mm
PCB: FR-4, T=0.80mm
TERMINAL: PHOSPHOR BRONZE.

PLATING SPEC AS BELOW:
ALL OVER NICKEL UNDERPLATING
GOLD PLATING ON CONTACT SURFACE.
MATTE TIN PLATING ON SOLDER TAIL.
FLEXIBLE FLAT CABLE: TOTAL LENGTH=124±2mm
PLATING SPEC AS BELOW:
CONTACT SURFACE: TIN PLATING.
SOLDER TAIL: TIN PLATING.

2. CARD DETECTION SWITCH NORMALLY OPEN WITHOUT MATING CARD
3. REFERENCE SPECIFICATION:
PRODUCT SPEC. GS 12-231
PACKING SPEC. GS 14-829



10	RFU
9	I/O
8	Vpp
7	GND
6	Sensor 2
5	Sensor 1
4	VCC
3	Reset
2	Clock
1	RFU
PIN NO.	ASSIGNMENT

TOLERANCE UNLESS OTHERWISE SPECIFIED	
LINEAR	X.X $\pm$ 0.5
	X.XX $\pm$ 0.3
	X.XXX $\pm$ 0.10
ANGLE	$\pm 0^{\circ}30'$

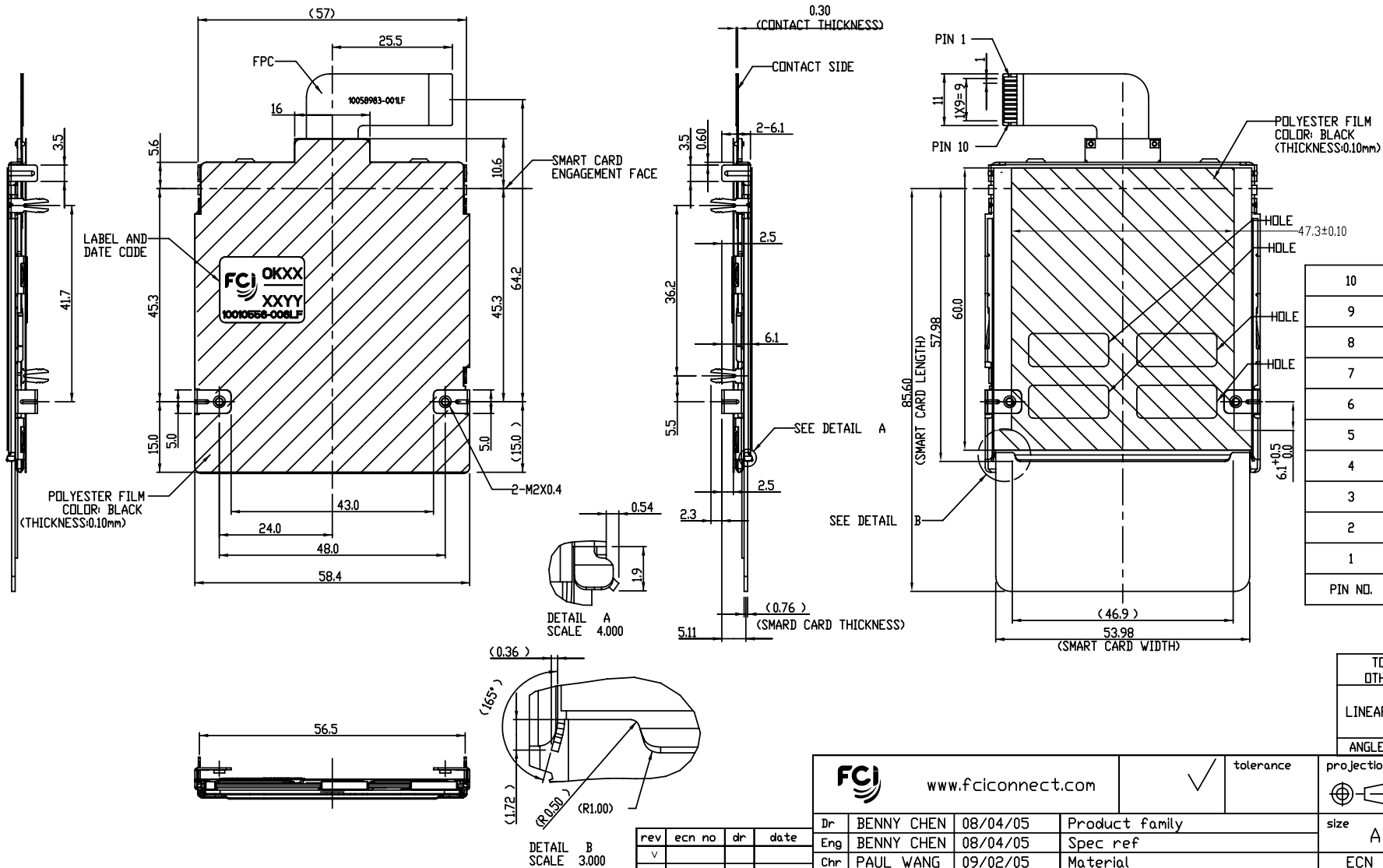
Mark with 10010556-004LF REV. In area indicated by X.....				Material		Spec ref					
				Mat code		✓		tolerance	projection	MM	
				Heatreat							
				Plating/Finish							
				Dr	BENNY CHEN	07/06/05				size	A4
rev	ecn no	dr	date	Eng	BENNY CHEN	07/06/05	Product family				
V				Chr	Paul Wang	08/11/05	Model Name 10010556-004LF			ECN	
				Appr	Joseph Hsia	08/11/05	Model Revision			REL Level	
				FCI		title ASSEMBLY SMART CARD READER				no dwg 10010556	Rev. V
		-	-	Pro/E file	catalog no				CUSTOMER DRAWING		sheet 5 of

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PRODUCT NO
10010556-006LF



10	SENSOR 2
9	SENSOR 1
8	RFU
7	I/O
6	Vpp
5	Gnd
4	RFU
3	Clock
2	Reset
1	Vcc
PIN NO.	ASSIGNMENT

TOLERANCE UNLESS OTHERWISE SPECIFIED	
LINEAR	XX=±0.5 X.XX=±0.3 X.XXX=±0.10
ANGLE	

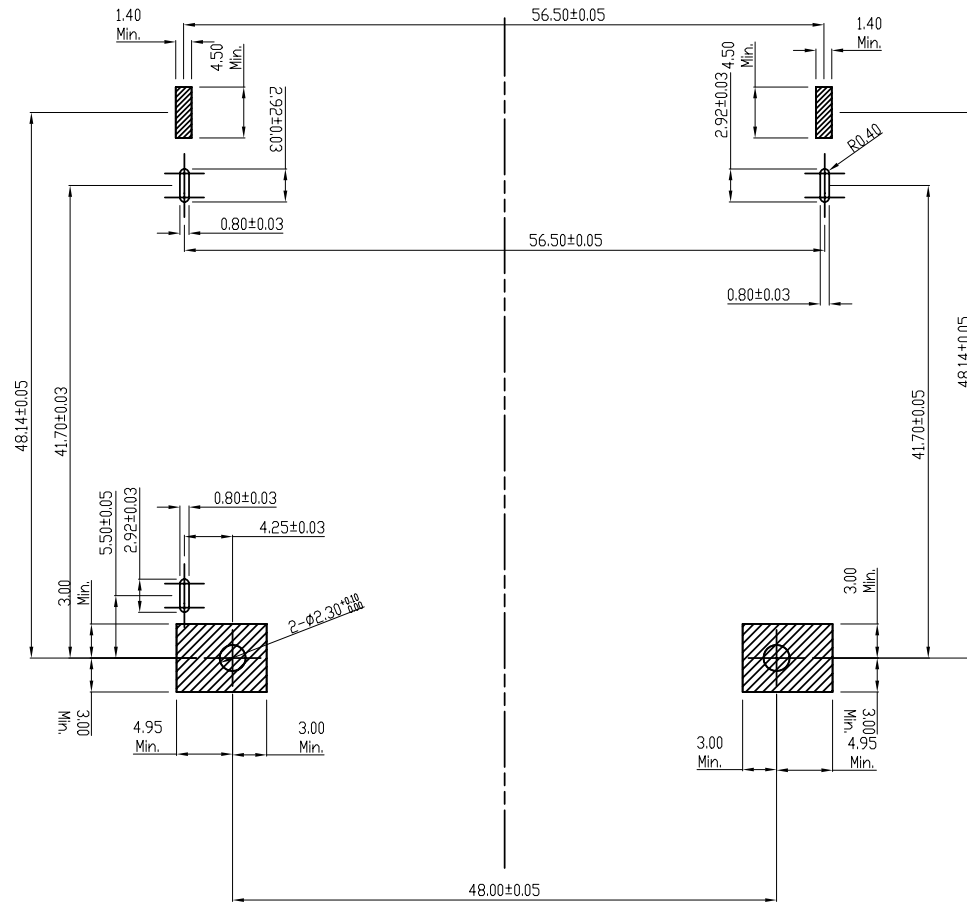
			www.fciconnect.com				tolerance					
Dr	BENNY CHEN	08/04/05	Product family				size		A4		Scale	
Eng	BENNY CHEN	08/04/05	Spec ref								1.000	
Chr	PAUL WANG	09/02/05	Material						ECN			
Appr	JOSEPH HSIA	09/02/05										
title			SMART CARD READER (FPC CABLE)				dwg no		10010556		Rev	
			ASSEMBLY									
catalog no							CUSTOMER DRAWING				sheet 6 of	

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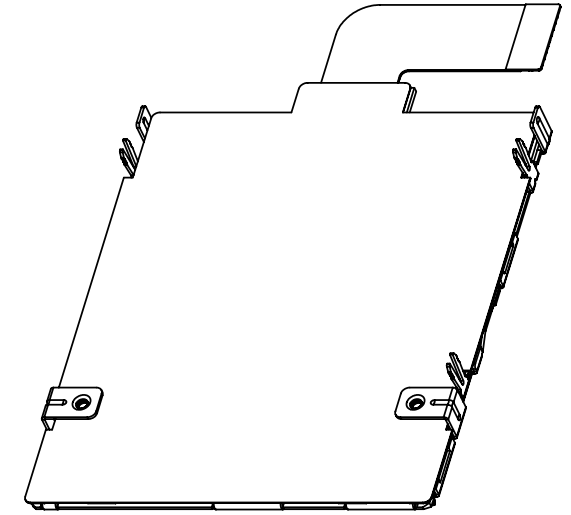


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PRODUCT NO
10010556-006LF



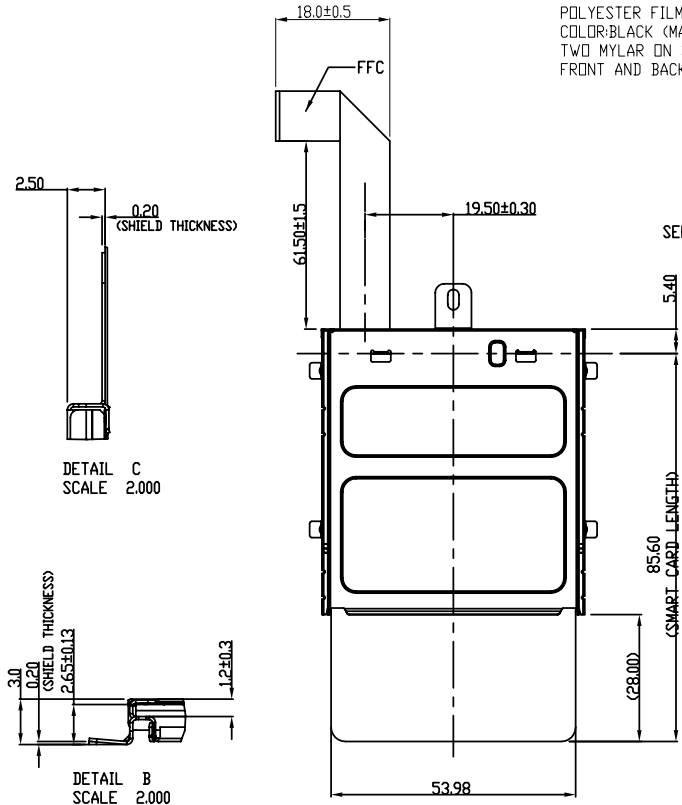
RECOMMENDED PCB LAYOUT
(PCB THICKNESS: 1.2 mm)
(MOUNTING SIDE)



- NOTE:
1. MATERIAL:
METAL SHELL: STAINLESS STEEL, T=0.40mm
PCB: FR-4, T=0.80mm
TERMINAL: PHOSPHOR BRONZE.
PLATING SPEC AS BELOW:
ALL OVER NICKEL UNDERPLATING
GOLD PLATING ON CONTACT SURFACE.
MATTE TIN PLATING ON SOLDER TAIL.
FLEX CIRCUIT CABLE (FPC):
PLATING SPEC AS BELOW:
CONTACT SURFACE: GOLD FLASH PLATING.
SOLDER TAIL: PURE TIN PLATING.
2. CARD DETECTION SWITCH NORMALLY OPEN WITHOUT MATING CARD
3. REFERENCE SPECIFICATION:
PRODUCT SPEC. GS-12-231
PACKING SPEC. GS-14-829

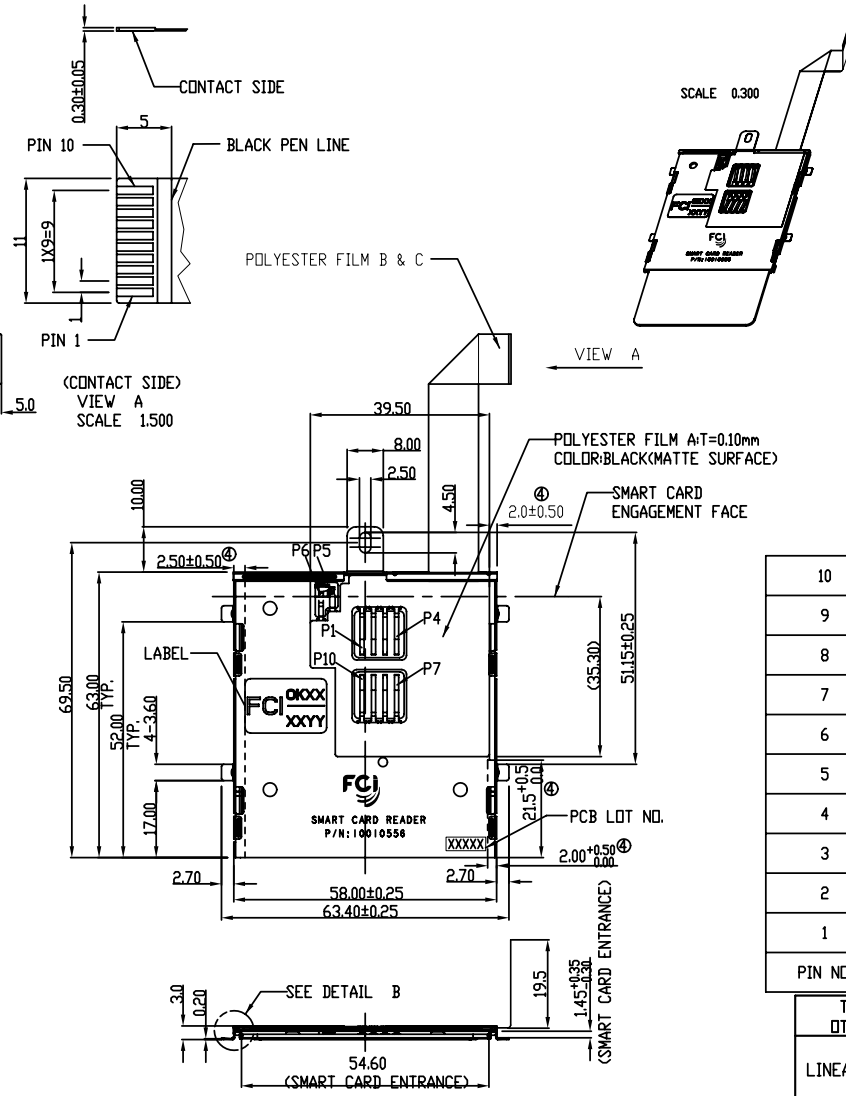
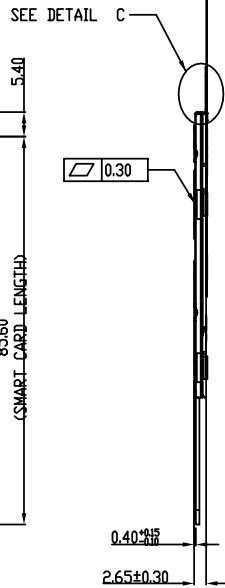
			www.fciconnect.com				tolerance						
Dr	BENNY CHEN	08/04/05	Product family				size		A4		Scale 1.000		
Eng	BENNY CHEN	08/04/05	Spec ref										
Chr	PAUL WANG	09/02/05	Material				ECN						
Appr	JOSEPH HSIA	09/02/05											
title			SMART CARD READER (FPC CABLE)					dwg no		10010556		Rev. V	
			ASSEMBLY										
catalog no										sheet 7 of			

PRODUCT NO
10010556-005LF



- NOTE:
1. Material:
METAL SHELL: STAINLESS STEEL, T=0.20mm
PCB: FR-4, T=0.80mm
TERMINAL: PHOSPHOR BRONZE.
PLATING SPEC AS BELOW:
ALL OVER NICKEL UNDERPLATING
GOLD PLATING ON CONTACT SURFACE.
MATTE TIN PLATING ON SOLDER TAIL.
FLEXIBLE FLAT CABLE: TOTAL LENGTH=103.5±2mm
PLATING SPEC AS BELOW:
CONTACT SURFACE: TIN PLATING.
SOLDER TAIL: TIN PLATING.
2. CARD DETECTION SWITCH NORMALLY OPEN WITHOUT MATING CARD
3. REFERENCE SPECIFICATION:
PRODUCT SPEC. GS 12-231
PACKING SPEC. GS 14-829
④ THE AREA IS PROHIBITED TO PASTE THE MYLAR AND LABEL.

SUPPORTING TAPE
POLYESTER FILM B & C: T=0.10mm
COLOR: BLACK (MATTE SURFACE)
TWO MYLAR ON SAME POSITION:
FRONT AND BACK SURFACE OF FFC

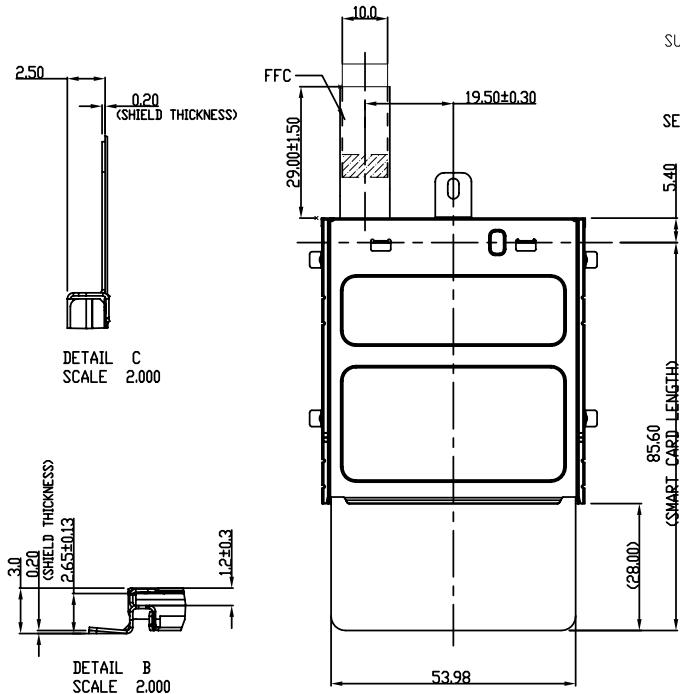


10	RFU
9	I/O
8	Vpp
7	GND
6	Sensor 2
5	Sensor 1
4	Vcc
3	Reset
2	Clock
1	RFU
PIN NO.	ASSIGNMENT

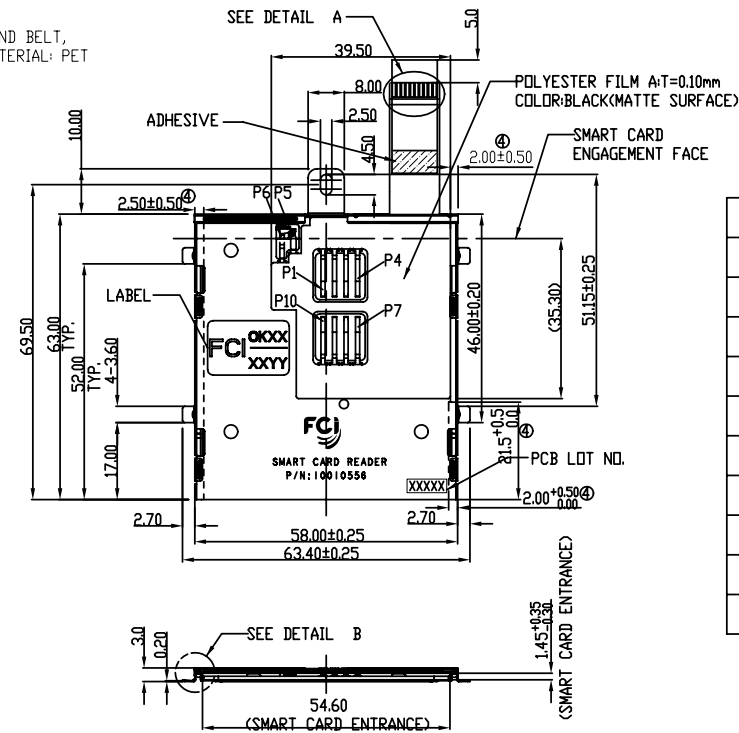
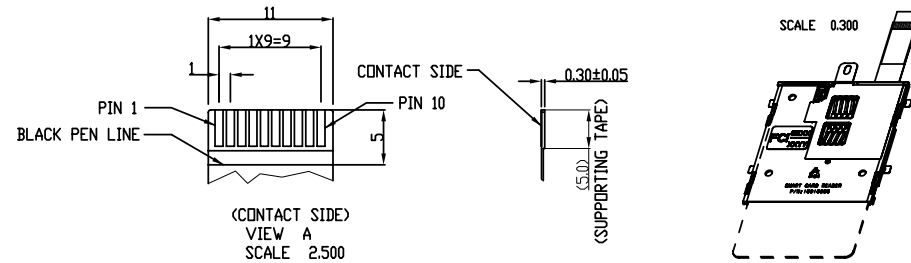
TOLERANCE UNLESS OTHERWISE SPECIFIED	
LINEAR	X.X=±0.25 X.XX=±0.13 X.XXX=±0.050
ANGLE	±0°30'

Mark with 10010556-004LF REV. In area indicated by X....				Material		Spec ref		tolerance		projection		MM	
rev				Mat code		Heattreat		Plating/Finish		size		A4	
ecn no				Dr		07/05/07		Product family		Model Name		10010556-005LF	
dr				Eng		07/05/07		Model Name		ECN		REL Level	
date				Chr		07/05/07		Model Revision		Rev.		V	
V				Appr		07/05/07		Model Revision		REL Level		10010556	
				FCI		title		ASSEMBLY		dwg no		10010556	
				Pro/E file		catalog no		CUSTOMER DRAWING		sheet 8 of			

PRODUCT NO
10010556-008LF



- NOTE:
1. Material:
 - METAL SHELL: STAINLESS STEEL, T=0.20mm
 - PCB: FR-4, T=0.80mm
 - TERMINAL: PHOSPHOR BRONZE.
 - PLATING SPEC AS BELOW:
 - ALL OVER NICKEL UNDERPLATING
 - GOLD PLATING ON CONTACT SURFACE.
 - MATTE TIN PLATING ON SOLDER TAIL.
 - FLEXIBLE FLAT CABLE: TOTAL LENGTH=33.5±1mm
 - PLATING SPEC AS BELOW:
 - CONTACT SURFACE: TIN PLATING.
 - SOLDER TAIL: TIN PLATING.
 2. CARD DETECTION SWITCH NORMALLY OPEN WITHOUT MATING CARD
 3. REFERENCE SPECIFICATION:
 - PRODUCT SPEC. GS 12-231
 - PACKING SPEC. GS 14-829
 - ④ THE AREA IS PROHIBITED TO PASTE THE MYLAR AND LABEL.



10	RFU
9	I/O
8	Vpp
7	GND
6	Sensor 2
5	Sensor 1
4	VCC
3	Reset
2	Clock
1	RFU
PIN NO.	ASSIGNMENT

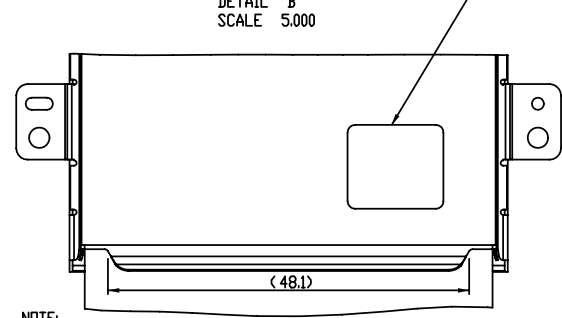
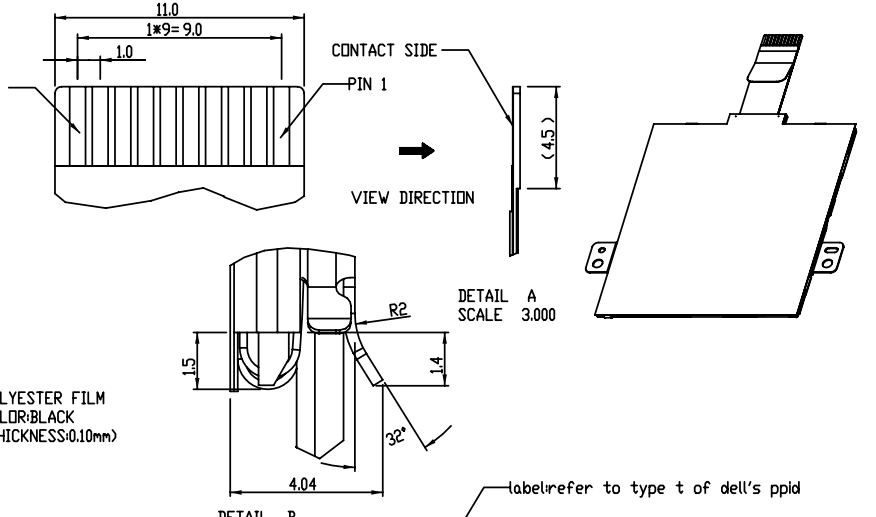
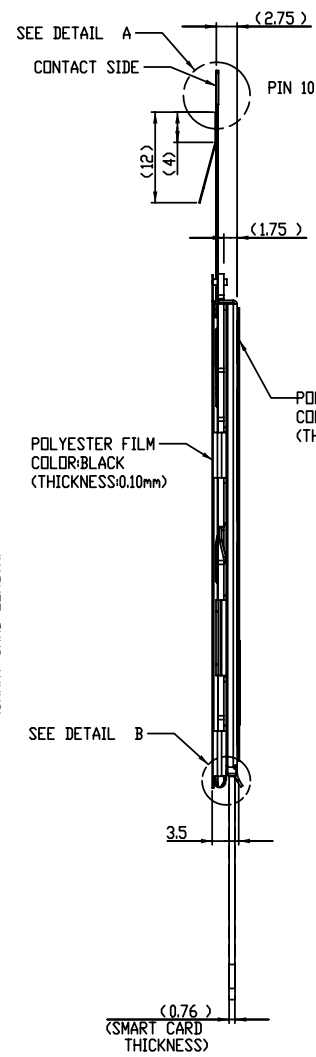
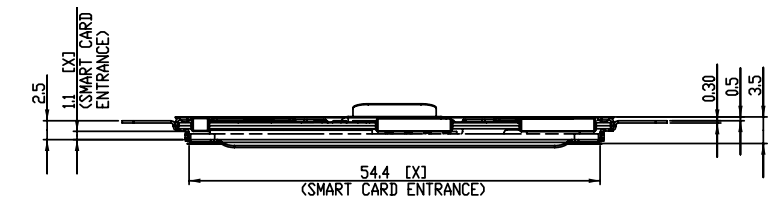
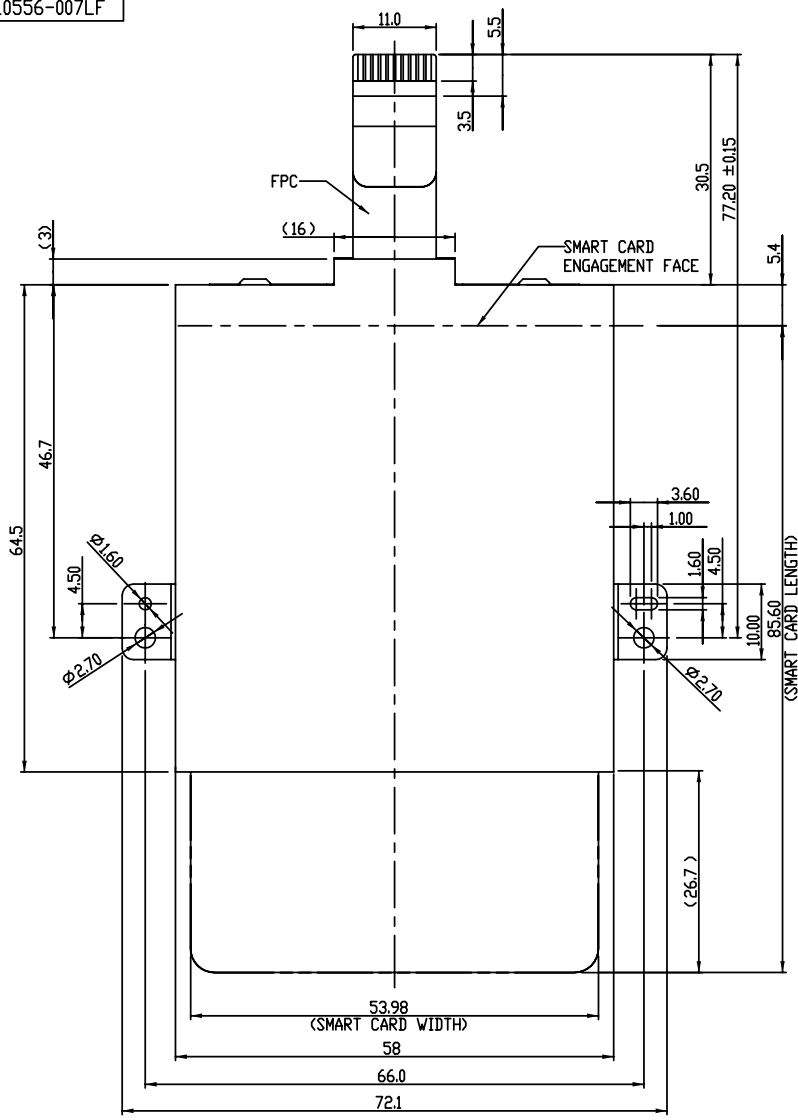
TOLERANCE UNLESS OTHERWISE SPECIFIED	
LINEAR	X.X=±0.5
	X.XX=±0.3
	X.XXX=±0.10
ANGLE	±0°30'

Mark with 10010556-004LF REV. In area indicated by X.....				Material		Spec ref														
				Mat code		✓		tolerance		projection		 MM ←→								
				Heat treat																
				Plating/Finish																
				Dr	DANIEL TAO		07/05/07						size		A4		Scale			
rev	ecn no	dr	date	Eng	DANIEL TAO		07/05/07		Product family						0.500					
V				Chr	DANIEL TAO		07/05/07		Model Name 10010556-008LF				ECN							
				Appr	JOSEPH HSIA		07/05/07		Model Revision				REL Level							
						title				ASSEMBLY				dwg no		10010556		Rev.		
										SMART CARD READER								V		
				Pro/E file	catalog no								CUSTOMER DRAWING				sheet 9 of			



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PART NUMBER
0010556-007LF



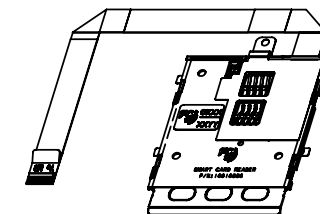
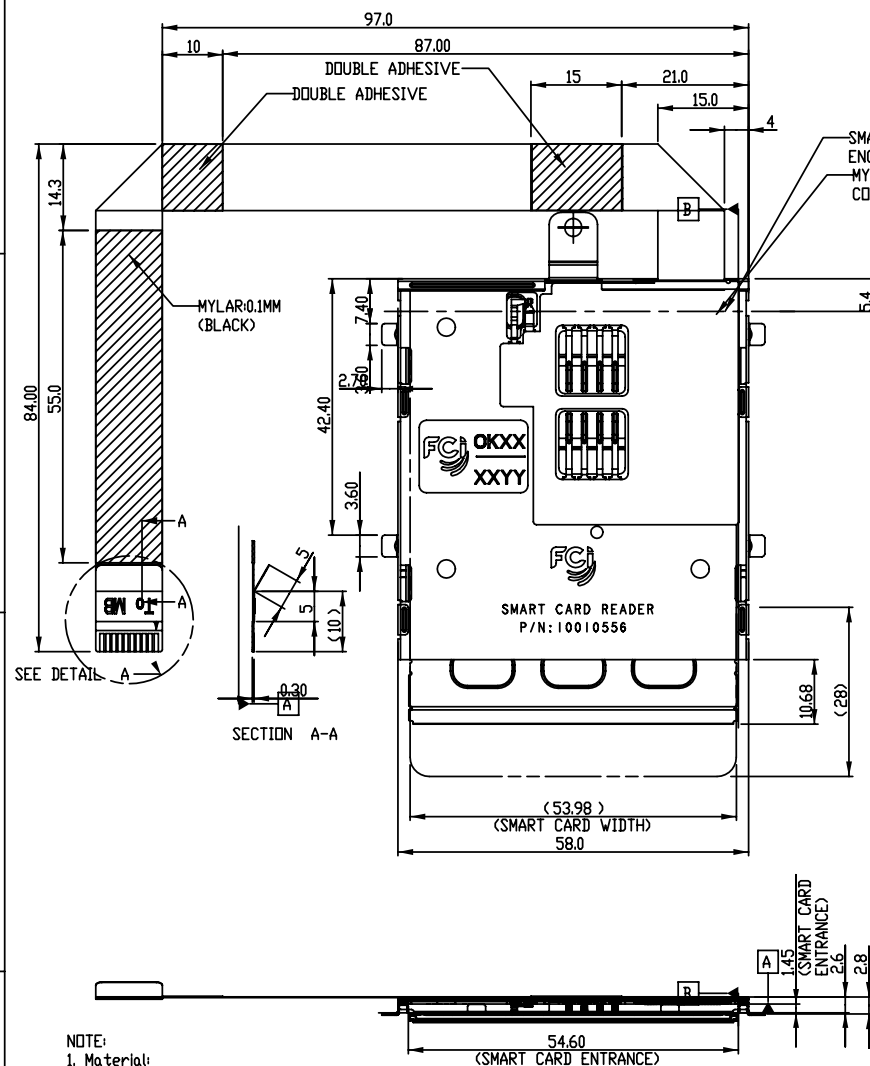
NOTE:
1. Material:
METAL SHELL: STAINLESS STEEL, T=0.30mm
GUIDE BLOCK: THERMOPLASTIC, UL94V-0.
PCB: FR-4, T=0.80mm, UL94V-0.
FPC: POLYIMIDE, T=0.30mm, UL94V-0.
PLATING SPEC AS BELOW:
UNDERPLATING: Ni 50 uin Min.
CONTACT SIDE PLATING: Au 3 uin, Min.
SOLDER SIDE PLATING: Pure Tin 100 uin Min.
TERMINAL: COPPER ALLOY.
PLATING SPEC AS BELOW:
UNDERPLATING: Ni 50 uin Min.
CONTACT PLATING: Au 30 uin Min.
SOLDER TAIL: Pure TIN 75 uin Min.
2. CARD DETECTION SWITCH NORMALLY OPEN WITHOUT MATING CARD
3. REFERENCE SPECIFICATION:
PRODUCT SPEC: GS-12-231.
PACKING SPEC: GS-14-829.

10	SENSOR 2
9	SENSOR 1
8	RFU
7	I/O
6	VPP
5	GND
4	RFU
3	CLOCK
2	RESET
1	VCC
PIN NO.	ASSIGNMENT

rev	ecn no	dr	date
M	N08-0024	BENNY	03/05/08
N	N08-0045	BENNY	05/05/08
V	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

www.fciconnect.com		surface x	tolerance std x	projection	MM
		TOLERANCES UNLESS OTHERWISE SPECIFIED			
Dr	BENNY CHEN	07/23/07	ANGULAR	0.X	±0.25
Eng	BENNY CHEN	07/23/07	LINEAR	0.XX	±0.15
Chr	PAUL WANG	09/10/07	0° ±3°	0.XXX	±
Appr	JOSEPH HSIA	09/11/07	Product family	ECN	*
title		ASSEMBLY		Spec ref	*
SMART CARD READER		dwg no		10010556	Rev. V
catalog no		* CUSTOMER DRAWING		sheet 10 of	

PART NUMBER
0010556-009LF



SCALE 0.350

10	RFU4	C4
9	CLOCK	C3
8	RESET	C2
7	VCC	C1
6	Sensor 2	
5	Sensor 1	
4	GND	C5
3	VPP	C6
2	I/O	C7
1	RFU8	C8
PIN NO.	ASSIGNMENT	PIN NO. DEFINED BY ISO-7816

NOTE:

1. Material:

METAL SHELL: STAINLESS STEEL, T=0.20mm
PCB: FR-4, T=0.80mm
TERMINAL: COPPER ALLOY.
PLATING SPEC AS BELOW:
ALL OVER NICKEL UNDERPLATING
GOLD PLATING ON CONTACT SURFACE.
MATTE TIN PLATING ON SOLDER TAIL.
FLEXIBLE FLAT CABLE: TOTAL LENGTH=33.5±1mm
PLATING SPEC AS BELOW:
CONTACT SURFACE: TIN PLATING.
SOLDER TAIL: TIN PLATING.

2. CARD DETECTION SWITCH NORMALLY OPEN WITHOUT MATING CARD

rev	ecn no	dr	date
P	N08-0093	SH	06/11/08
V	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

www.fciconnect.com			surface	tolerance std	projection	MM
			x	x	⊕	
			TOLERANCES UNLESS OTHERWISE SPECIFIED		size	Scale
Dr BENNY CHEN 10/24/07			ANGULAR	0.X	A4	0.500
Eng BENNY CHEN 10/24/07			LINEAR	0.XX		
Chr PAUL WANG 12/15/07			0° ±X°	0.XXX	ECN	*
Appr JOSEPH HSIA 12/15/07			Product family		Spec ref	*
FCI			ASSEMBLY		dwg no	Rev.
			SMART CARD READER		10010556	V
catalog no			* CUSTOMER DRAWING		sheet 11 of	



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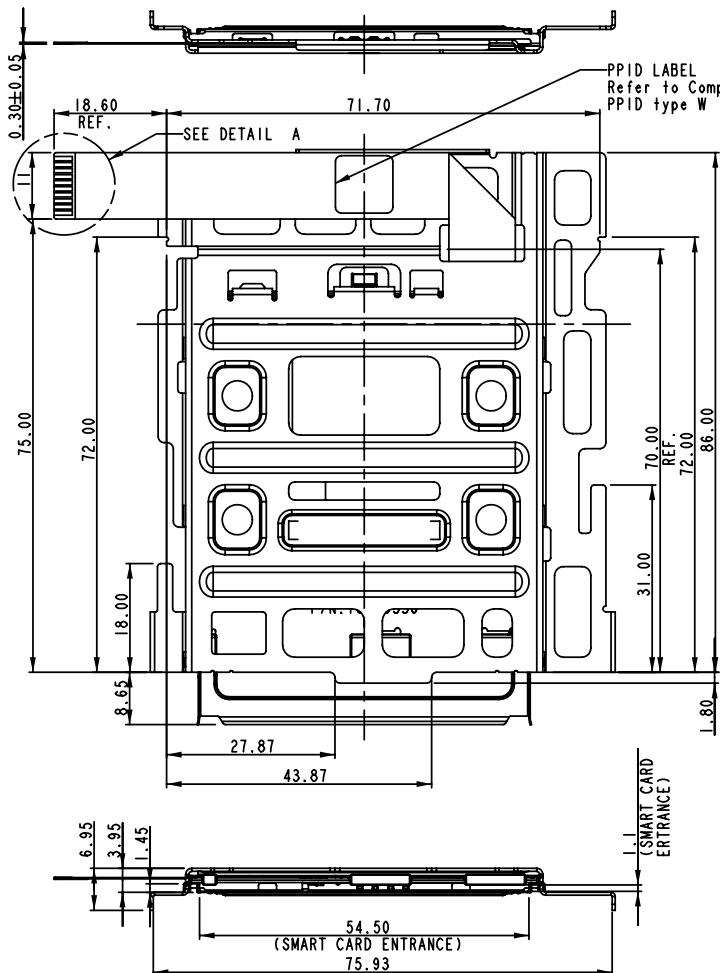
D

PART NUMBER
10010556-010LF

A

B

C



NOTE:

1. Material:

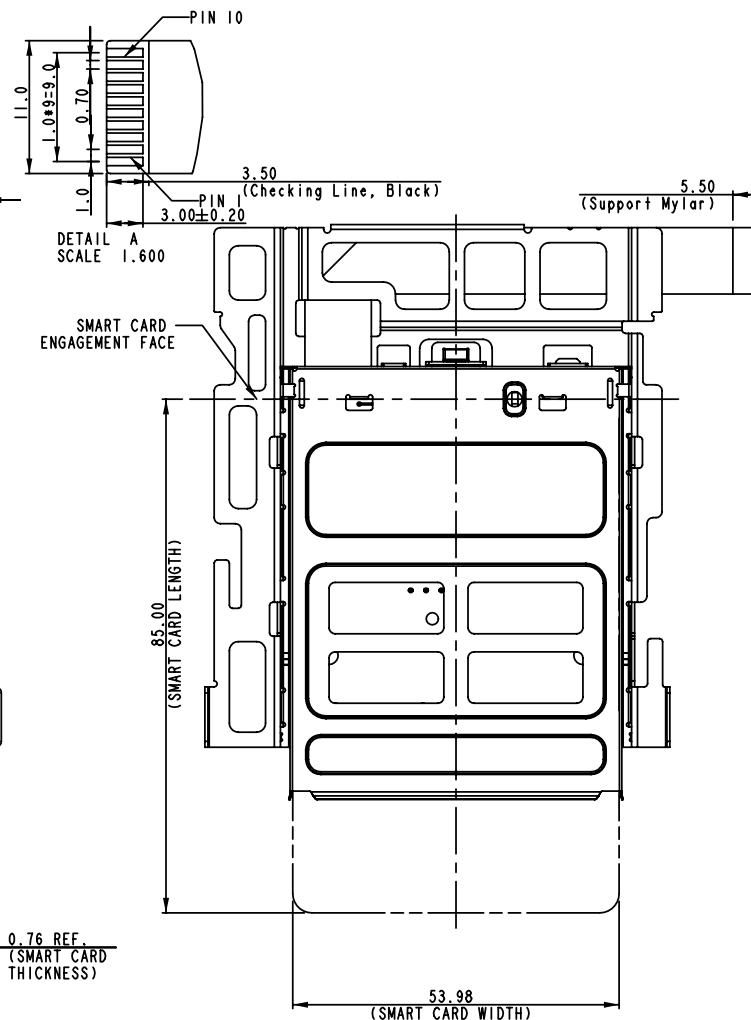
METAL SHELL: STAINLESS STEEL
BRACKET: STEEL
GUIDE BLOCK: THERMOPLASTIC, UL94V-0.
PCB: FR-4, T=0.80mm, UL94V-0.
FFC: POLYESTER, UL20624.
PLATING SPEC AS BELOW:
CONTACT SIDE PLATING: GOLD.
SOLDER SIDE PLATING: Pure Tin.
TERMINAL: COPPER ALLOY.

2. CARD DETECTION SWITCH NORMALLY OPEN WITHOUT MATING CARD
3. REFERENCE SPECIFICATION:
PRODUCT SPEC.: GS-12-231.
PACKING SPEC.: GS-14-829.

REV F - 2006-04-17

2

2



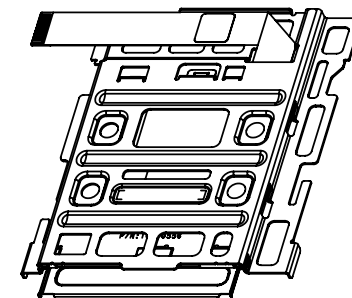
rev	ecn no	dr	date
P	N08-0093	SH	06/11/08
R	N08-0136	SH	07/01/08
S	N08-0212	SH	10/06/08
V	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

www.fciconnect.com			surface X		✓	tolerance std X X		projection 	MM 		
			TOLERANCES UNLESS OTHERWISE SPECIFIED								
Dr	BENNY CHEN	02/05/08	ANGULAR		LINEAR	0.X		±0.3	size A4	Scale 1.000	
Eng	BENNY CHEN	02/05/08				0.XX		±.20			
Chr	PAUL WANG	02/13/08	0° ±X°			0.XXX		±X	ECN	*	
Appr	JOSEPH HSIA	02/15/08	Product family						Spec ref *		
			title ASSEMBLY SMART CARD READER				dwg no 10010556			Rev V	
			catalog no				* CUSTOMER DRAWING sheet 12 of				

3PDM: Rev:V

STATUS:Released

4 Printed: Mar 12, 2010



SCALE 0.500

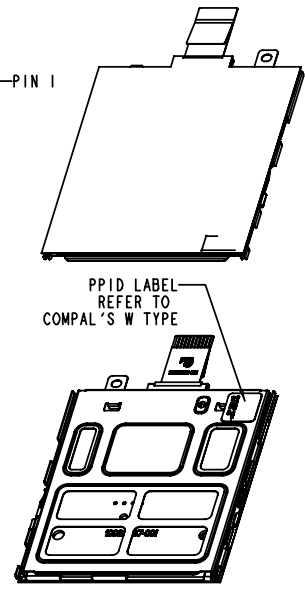
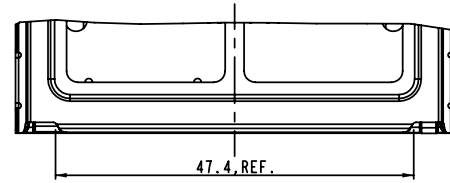
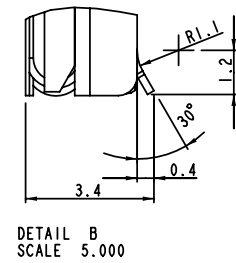
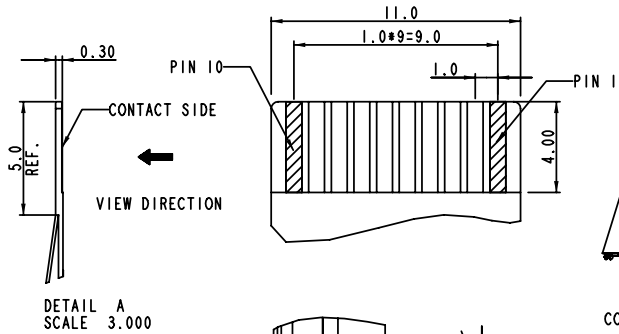
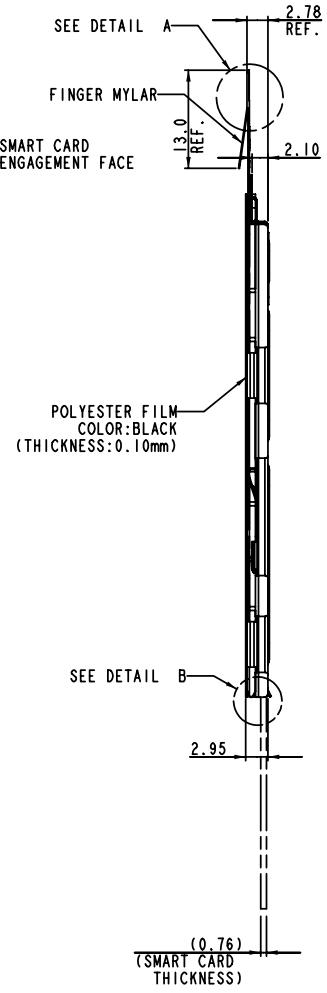
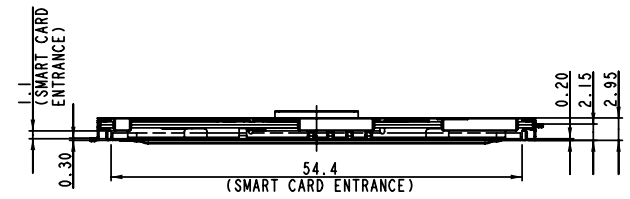
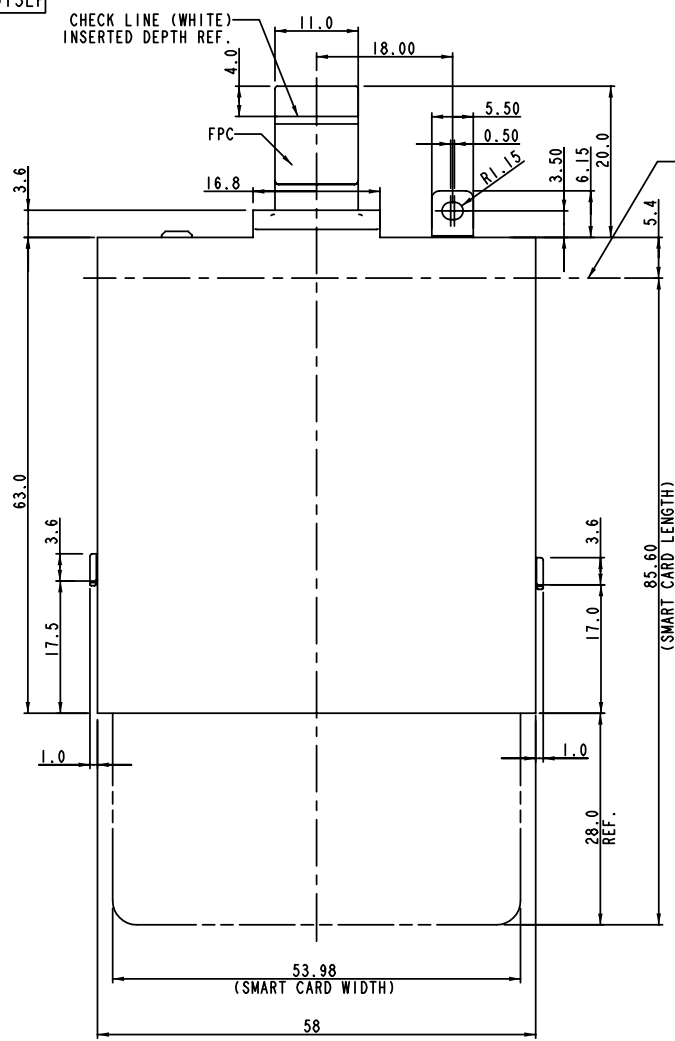
PIN NO.	ASSIGNMENT	PIN NO. DEFINED BY ISO-7816
10	VCC	C1
9	Reset	C2
8	Clock	C3
7	RFU4	C4
6	Gnd	C5
5	VPP	C6
4	I/O	C7
3	RFU8	C8
2	SENSOR 2	
1	SENSOR 1	

4 Printed: Mar 12, 2010



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PART NUMBER
10010556-013LF



NOTE:
1. Material:
METAL SHELL: STAINLESS STEEL, T=0.20mm
GUIDE BLOCK: THERMOPLASTIC, UL94V-0.
PCB: FR-4, T=0.80mm, UL94V-0.
FPC: POLYIMIDE, T=0.30mm, UL94V-0.
PLATING SPEC AS BELOW:
UNDERPLATING: Ni 50 uin Min.
CONTACT SIDE PLATING: Au 3 uin Min.
SOLDER SIDE PLATING: Pure Tin 100 uin Min.
TERMINAL: COPPER ALLOY.
PLATING SPEC AS BELOW:
UNDERPLATING: Ni 50 uin Min.
CONTACT PLATING: Au 30 uin Min.
SOLDER TAIL: Pure TIN 75 uin Min.
2. CARD DETECTION SWITCH NORMALLY OPEN WITHOUT MATING CARD
3. REFERENCE SPECIFICATION:
PRODUCT SPEC.: GS-12-231.
PACKING SPEC.: GS-14-829.

10	VCC	C 1
9	GND	C 5
8	RESET	C 2
7	VPP	C 6
6	CLOCK	C 3
5	I/O	C 7
4	RFU 4	C 4
3	RFU 8	C 8
2	SENSOR 2	
1	SENSOR 1	
PIN NO.	ASSIGNMENT	DEFINED BY ISO 7816

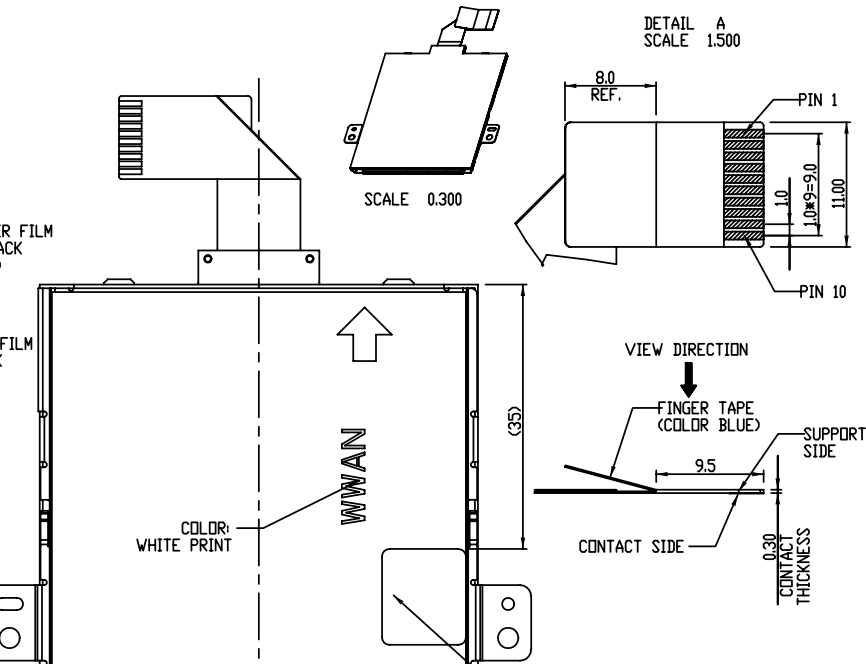
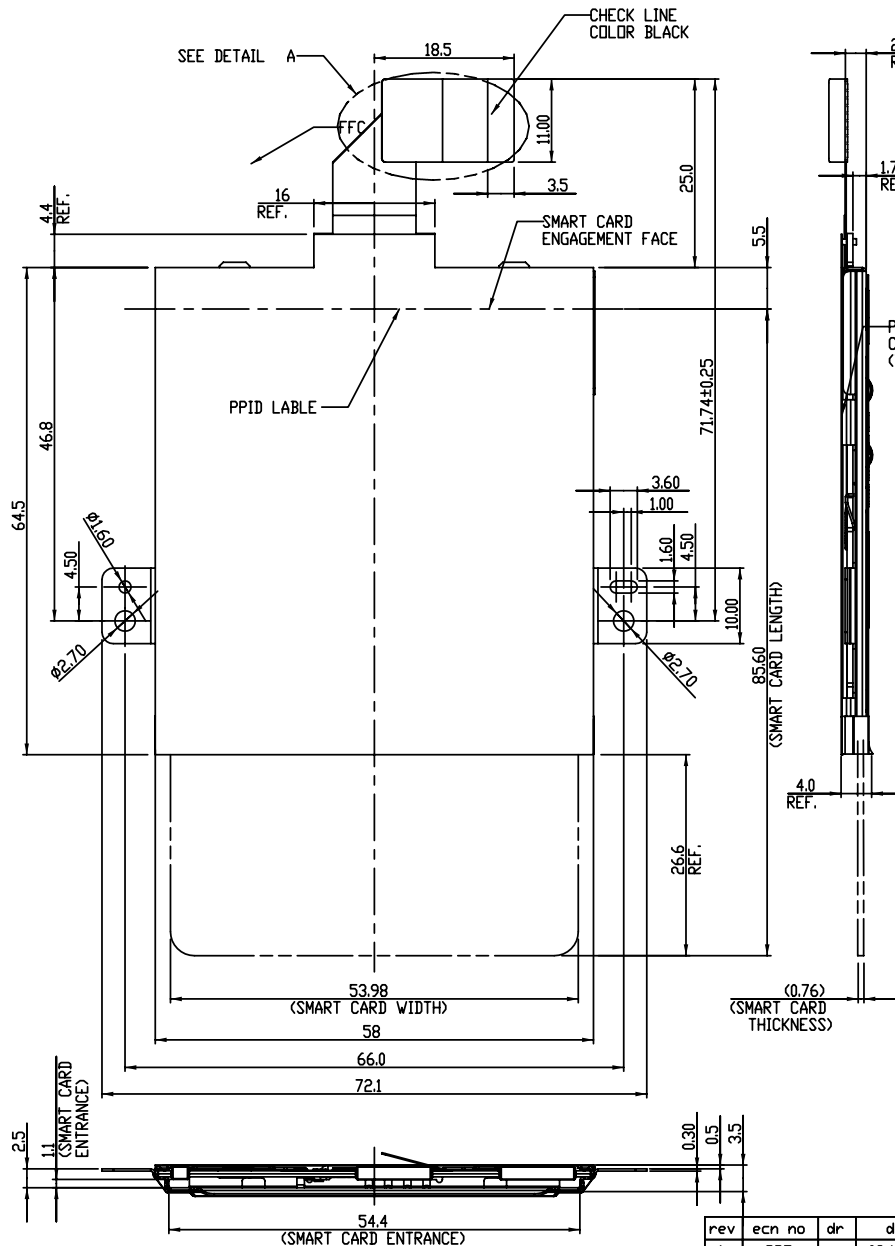
rev	ecn no	dr	date
R	N08-0136	BENNY	05/08/08
S	N08-0212	SH	10/06/08
V	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

www.fciconnect.com			surface X		tolerance std X X		projection 		MM 	
			TOLERANCES UNLESS OTHERWISE SPECIFIED							
Dr	BENNY CHEN	05/08/08	ANGULAR LINEAR		0.X		±0.25		size A4	Scale 0.500
Eng	BENNY CHEN	05/08/08			0.XX		±0.15			
Chr	PAUL WANG	05/19/08			0° ±3°		0.XXX ±			
Appr	JOSEPH HSIA	06/16/08	Product family						ECN *	
									</	



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PART NUMBER
10010556-015LF

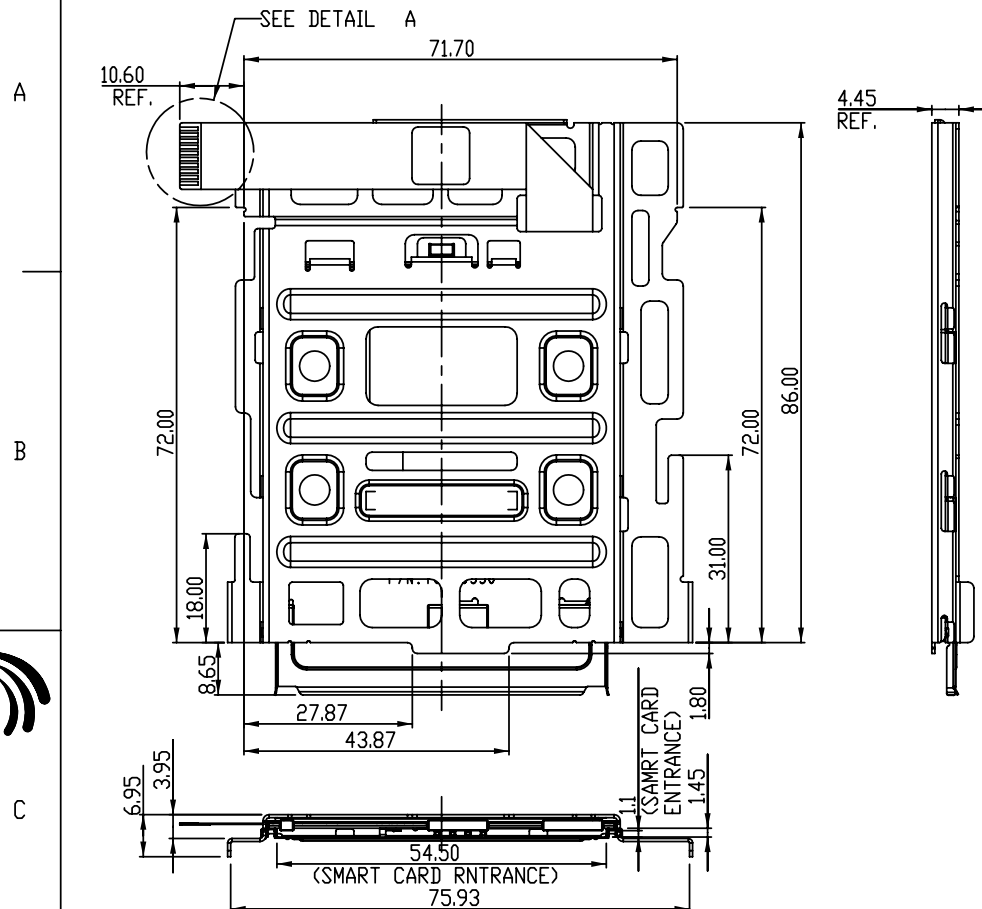


- NOTE:
- Material:
METAL SHELL: STAINLESS STEEL, T=0.30mm
GUIDE BLOCK: THERMOPLASTIC, UL94V-0
PCB: FR-4, T=0.80mm, UL94V-0
FFC: POLYESTER, T=0.30mm, UL20624, NO PRINTING.
PLATING SPEC AS BELOW:
CONTACT SIDE PLATING: Au 3 uin Min.
SOLDER SIDE PLATING: Pure Tin 100 uin Min.
TERMINAL: PHOSPHOR BRONZE.
PLATING SPEC AS BELOW:
UNDERPLATING: Ni 50 uin Min.
CONTACT PLATING: Au 30 uin Min.
SOLDER TAIL: Pure TIN 75 uin Min.
 - LEAD FREE AND ROHS COMPLIANT PRODUCT.
 - CARD DETECTION SWITCH NORMALLY OPEN WITHOUT MATING CARD.
 - REFERENCE SPECIFICATION:
PRODUCT SPEC: GS-12-231.
PACKING SPEC: GS-14-829.

PIN NO.	ASSIGNMENT
10	SENSOR 2
9	SENSOR 1
8	RFU8
7	I/O
6	VPP
5	GND
4	RFU4
3	CLOCK
2	RESET
1	VCC

www.fciconnect.com			surface x	tolerance std x	projection	MM	
			TOLERANCES UNLESS OTHERWISE SPECIFIED		⊕		
Dr	BENNY CHEN	04/15/09	ANGULAR	0.X	±0.25	size A4	Scale 0.500
Eng	BENNY CHEN	04/15/09	LINEAR	0.XX	±0.15	ECN	*
Chr	PAUL WANG	04/18/09	0° ±3°	0.XXX	±	Spec ref	*
Appr	JOSEPH HSIA	04/20/09	Product family				
FCI			title ASSEMBLY SMART CARD READER		dwg no 10010556		Rev. V
catalog no			*		CUSTOMER DRAWING sheet 17 of		

PRODUCT NO.
10010556-016LF



NOTE:

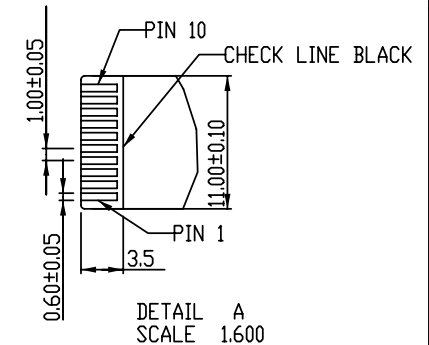
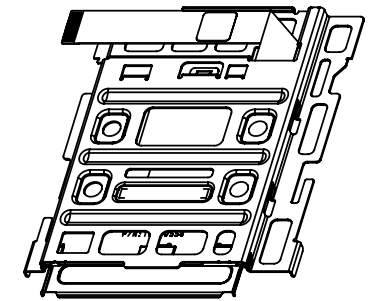
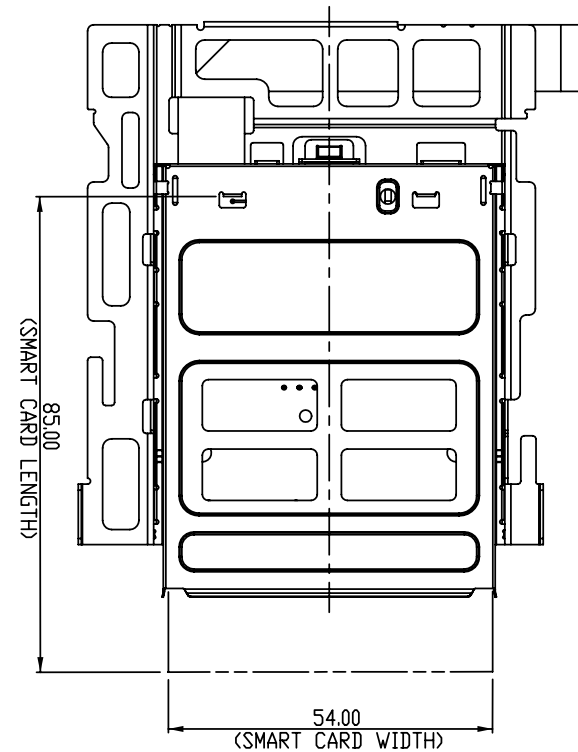
1. Material:

METAL SHELL: STAINLESS STEEL
BRACKET: STEEL
GUIDE BLOCK: THERMOPLASTIC, UL94V-0.
PCB: FR-4, T=0.80mm, UL94V-0.
FFC: POLYESTER, UL20624.
PLATING SPEC AS BELOW:
CONTACT SIDE PLATING: GOLD.
SOLDER SIDE PLATING: Pure Tin.
TERMINAL: COPPER ALLOY.

PLATING SPEC AS BELOW:
UNDERPLATING: NICKEL.
CONTACT PLATING: GOLD.
SOLDER TAIL: Pure TIN.

2. CARD DETECTION SWITCH NORMALLY OPEN WITHOUT MATING CARD

3. REFERENCE SPECIFICATION:
PRODUCT SPEC: GS-12-231.
PACKING SPEC: GS-14-829.



10	VCC	C1
9	RESET	C2
8	CLOCK	C3
7	RFU 4	C4
6	GND	C5
5	VPP	C6
4	I/O	C7
3	RFU 8	C8
2	SENSOR 2	
1	SENSOR 1	
PIN NO.	ASSIGNMENT	PIN NO. DEFINED BY ISO-7816

www.fciconnect.com			surface 		tolerance std		projection 			
			TOLERANCES UNLESS OTHERWISE SPECIFIED							
Dr	MIAD SH	04/14/09	ANGULAR		LINEAR	0.X	±0.3	size	A4	Scale
Eng	MIAD SH	04/14/09				0.XX	±0.2			
Chr	TAD DANIEL	04/14/09	0°	±2°		0.XXX	±0.1	ECN		
Appr	TAD DANIEL	04/14/09	Product family					-	Spec ref	
			title			SMART CARD READER			dwg no	
			-			10010556			Rev.	
			catalog no			-			CUSTOMER DRAWING	
									sheet 18 of	

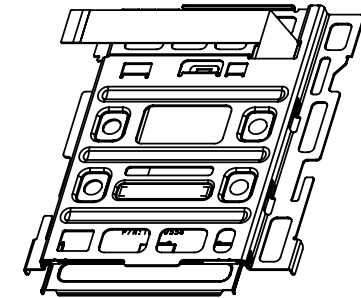
rev	ecn no	dr	date
V	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

PRODUCT NO.
10010556-017LF

CHECK LINE
COLOR BLACK

4.45
REF.

SEE DETAIL A



A

B

C

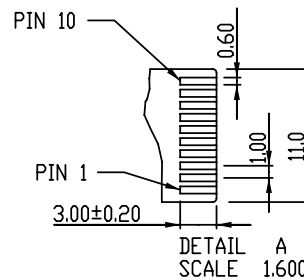
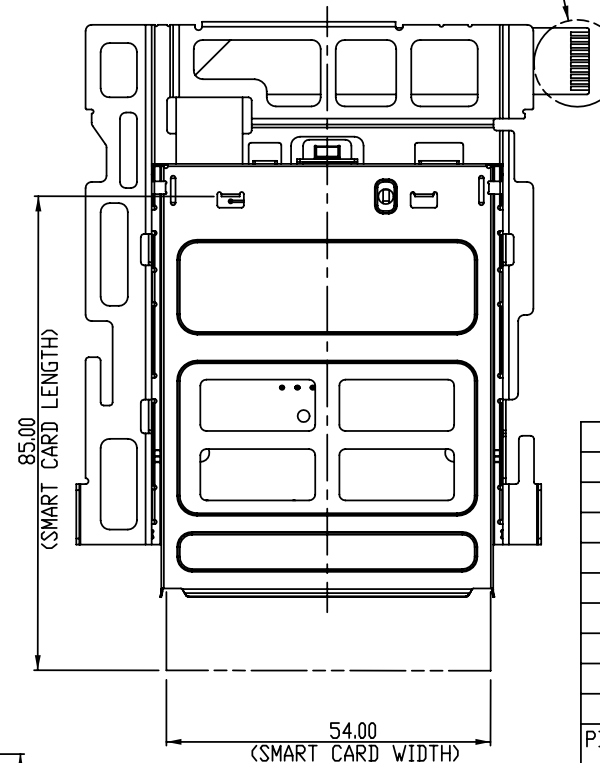
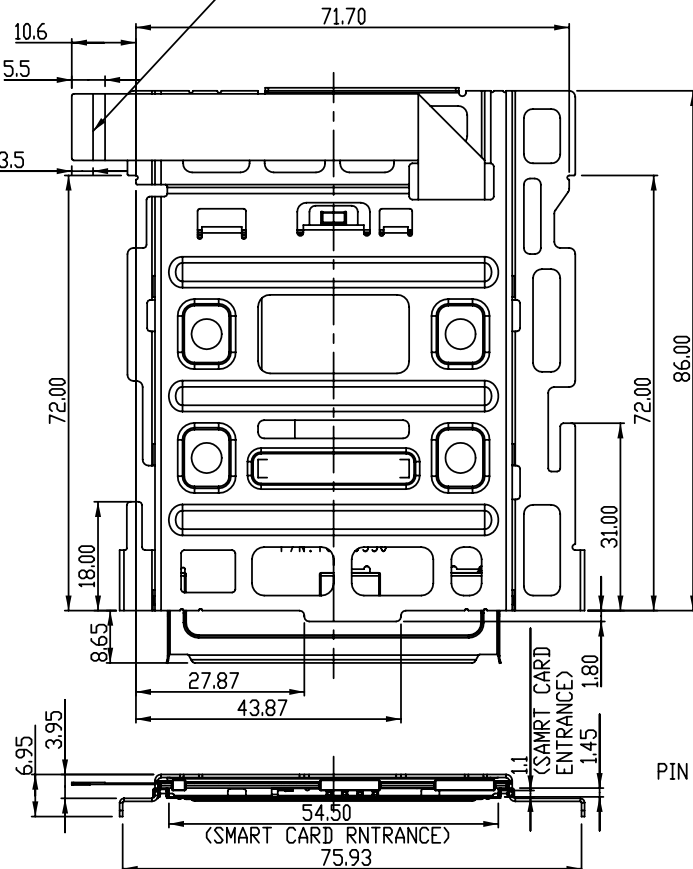
D

A

B

C

D



NOTE:

1. Material:

METAL SHELL: STAINLESS STEEL
BRACKET: STEEL
GUIDE BLOCK: THERMOPLASTIC, UL94V-0
PCB: FR-4, T=0.80mm, UL94V-0
FFC: POLYESTER, UL20624
PLATING SPEC AS BELOW:
CONTACT SIDE PLATING: GOLD FLASH 0.076um MIN.
SOLDER SIDE PLATING: MATTE TIN.
TERMINAL: COPPER ALLOY.

PLATING SPEC AS BELOW:
UNDERPLATING: NICKEL
CONTACT PLATING: GOLD 0.76um MIN.
SOLDER TAIL: MATTE TIN.

2. CARD DETECTION SWITCH NORMALLY OPEN WITHOUT MATING CARD
3. REFERENCE SPECIFICATION:
PRODUCT SPEC: GS-12-231.
PACKING SPEC: GS-14-829.

rev	ecn no	dr	date
1	N09-XXXX	SH	04/14/09
2	-	SH	07/16/09
V	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

www.fciconnect.com			surface - 		tolerance std										
			TOLERANCES UNLESS OTHERWISE SPECIFIED												
Dr	MIAD SH	04/14/09	ANGULAR	LINEAR	0.X	±0.3	size	A4	Scale	1.000					
Eng	MIAD SH	04/14/09			0.XX	±0.2									
Chr	TAD DANIEL	04/14/09			0.XXX	±0.1									
Appr	TAD DANIEL	04/14/09	Product family			-		Spec ref							
		title				SMART CARD READER				dwg no		10010556		Rev.	
		-												V	
		catalog no				-				CUSTOMER DRAWING		sheet 19 of			

PRODUCT NO
10010556-018LF



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SEE DETAIL A

FFC

2.50
0.20
(SHIELD THICKNESS)

DETAIL C
SCALE 2.000

3.0
0.20
(SHIELD THICKNESS)

DETAIL B
SCALE 2.000

NOTE:

1. Material:

METAL SHELL: STAINLESS STEEL, T=0.20mm

PCB: FR-4, T=0.80mm

TERMINAL: PHOSPHOR BRONZE.

PLATING SPEC AS BELOW:

ALL OVER NICKEL UNDERPLATING

GOLD PLATING ON CONTACT SURFACE.

MATTE TIN PLATING ON SOLDER TAIL.

FLEXIBLE FLAT CABLE: TOTAL LENGTH=124±2mm

PLATING SPEC AS BELOW:

CONTACT SURFACE: TIN PLATING.

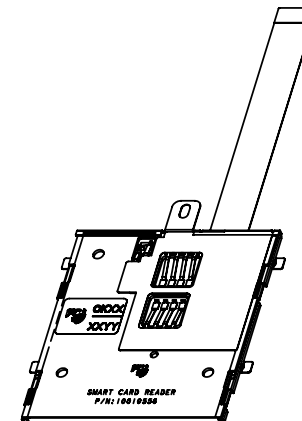
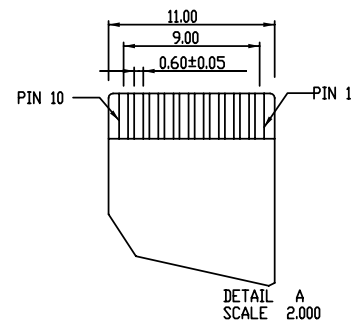
SOLDER TAIL: TIN PLATING.

2. CARD DETECTION SWITCH NORMALLY OPEN WITHOUT MATING CARD

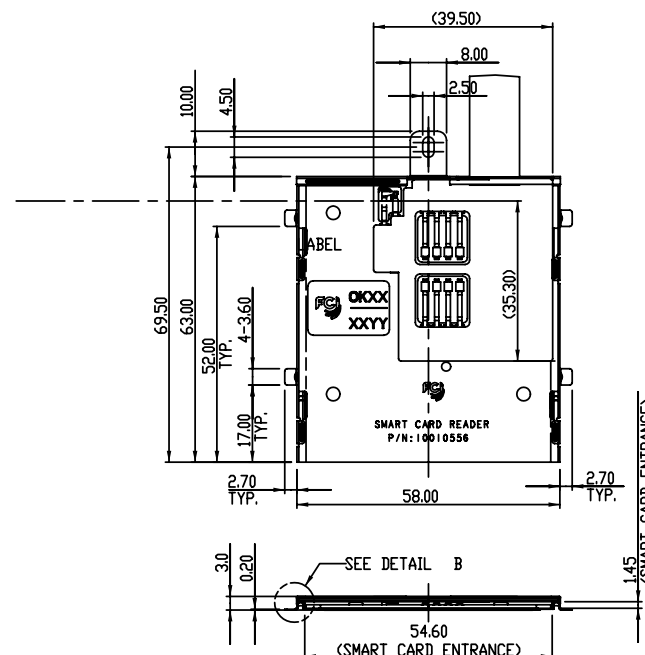
3. REFERENCE SPECIFICATION:

PRODUCT SPEC. GS 12-231

PACKING SPEC. GS 14-829



SEE DETAIL C



10	RFU
9	I/O
8	Vpp
7	GND
6	Sensor 2
5	Sensor 1
4	Vcc
3	Reset
2	Clock
1	RFU
PIN NO.	ASSIGNMENT

TOLERANCE UNLESS OTHERWISE SPECIFIED	
LINEAR	X.X=±0.8 X.XX=±0.3 X.XXX=±0.13
ANGLE	±3°

www.fciconnect.com			surface 		tolerance std		projection 				
			TOLERANCES UNLESS OTHERWISE SPECIFIED								
Dr	MIAD SH	09/25/09	ANGULAR		LINEAR	0.X	±0.8	size	A4	Scale	
Eng	MIAD SH	09/25/09				0.XX	±0.25				
Chr	TAD DANIEL	09/25/09	0° ±°			0.XXX	±0.13	ECN			
Appr			Product family					Spec ref			
		title				SMART CARD READER				dwg no	
						10010556				Rev.	
										V	
		catalog no								sheet 20 of	