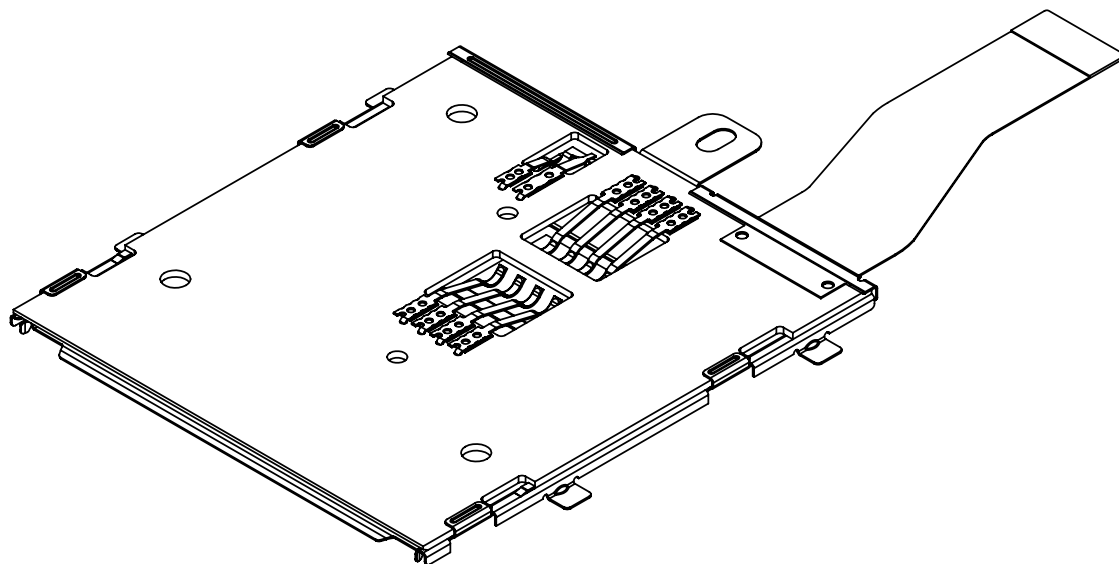




PRODUCT NO.	FPC	PACKAGING	COMPONENTS	LEAD FREE	PCB COLOR
10010556-002LF	10010559-002LF	10017475-02-002	ELEC. PARTS	YES	BLUE
10010556-003LF	10105325-001	10017475-02-009	N/A	YES	BLACK
10010556-004LF	10056226-002LF(FFC)	10017475-02-004	N/A	YES	BLUE
10010556-006LF	10058983-001LF	10017475-02-003	N/A	YES	BLACK
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



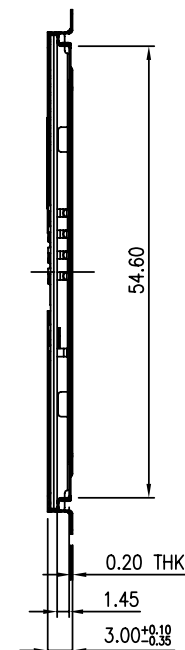
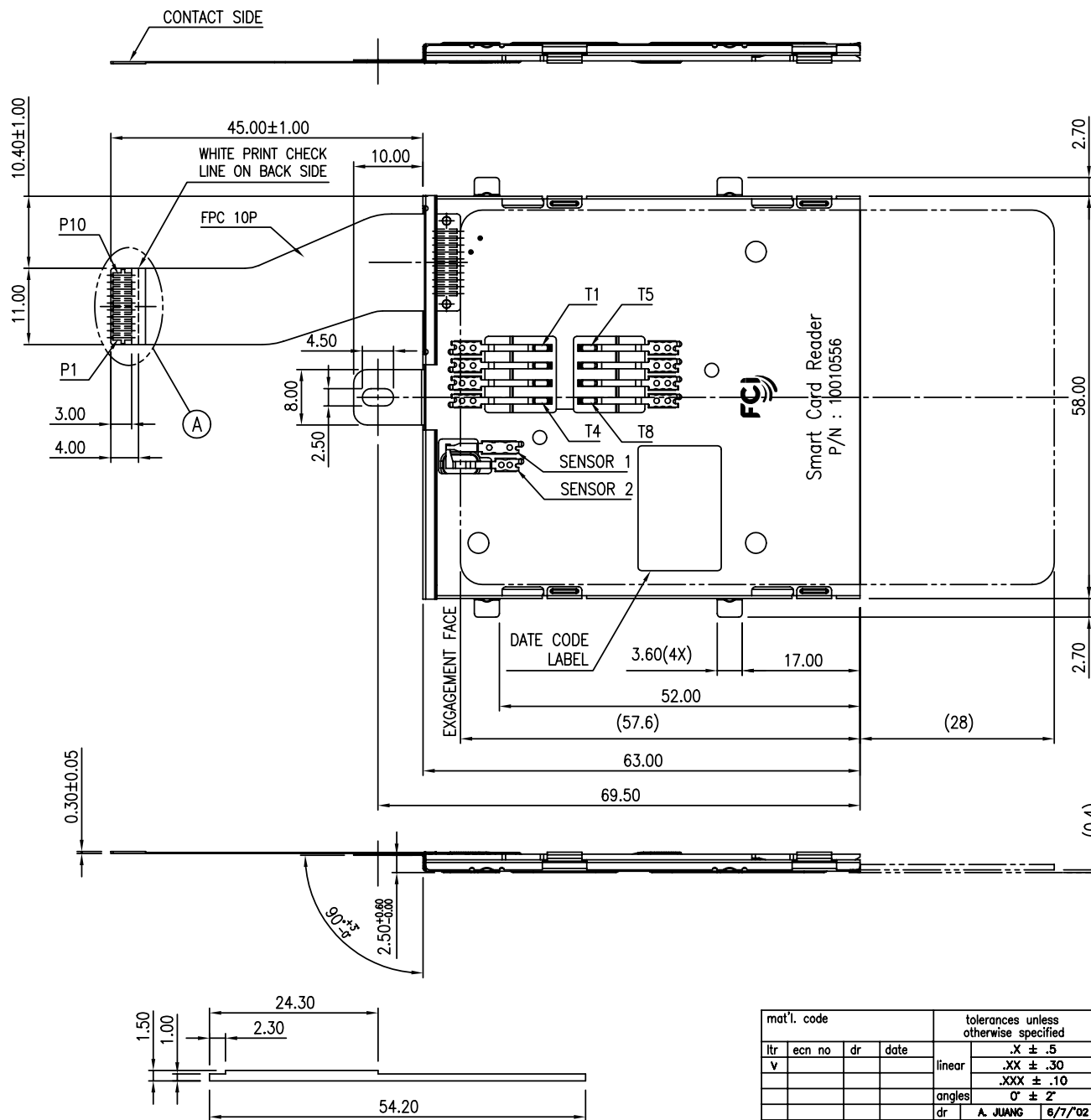
NOTE :

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		.X ± 0.5						
R	N08-0136	SH	07/07/08	linear	.XX ± 0.30	projection					
S	N08-0212	SH	10/06/08		.XXX ± 0.10						
T	N09-0224	SH	7/15/09	angles	0° ± 2°						
U	N09-0306	SH	10/13/09	dr	A.JUANG 6/7'02	MM					
V	N10-0058	SH	3/3/10	enr	A.JUANG 6/7'02	scale					
				chr	A.JUANG 6/7'02	NONE					
				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

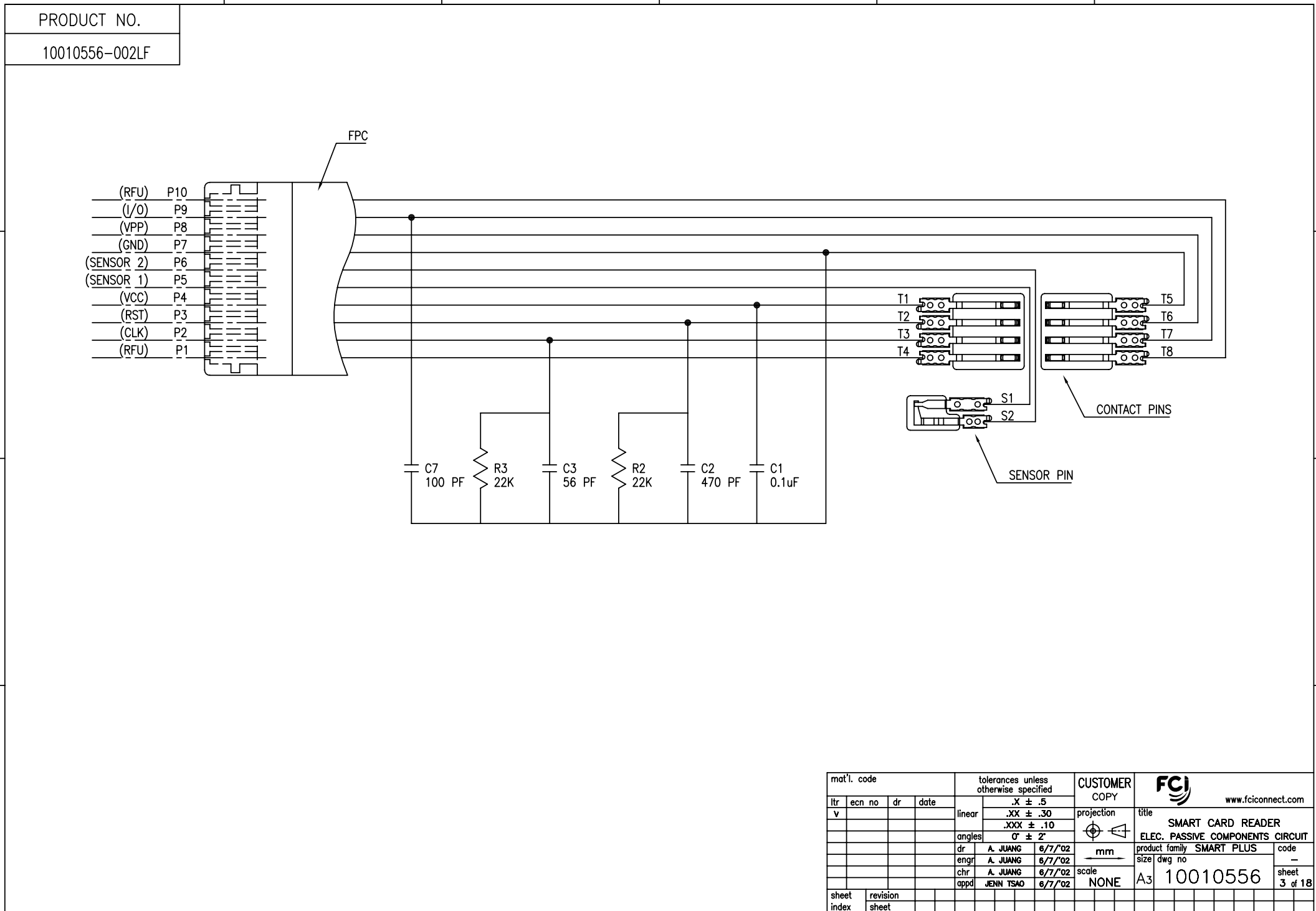


mat'l. code				tolerances unless otherwise specified			CUSTOMER COPY		FCI www.fciconnect.com	
itr	ecn no	dr	date	linear	.X ± .5		projection 	title SMART CARD READER ASSEMBLY		
v					.XX ± .30					
					.XXX ± .10					
					angles 0° ± 2°					
				dr	A. JUANG	6/7/'02		product family		code
				engr	A.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

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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	—			
				chr	A. JUANG	6/7/'02					A3		10010556	sheet	
				appd	JENN TSAO	6/7/'02								3 of 18	
sheet index	revision sheet										code code				
PDM: Rev:V				STATUS: Released				Printed: Mar 12, 2010				22926		6	

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

3.6

1.45

16.8

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

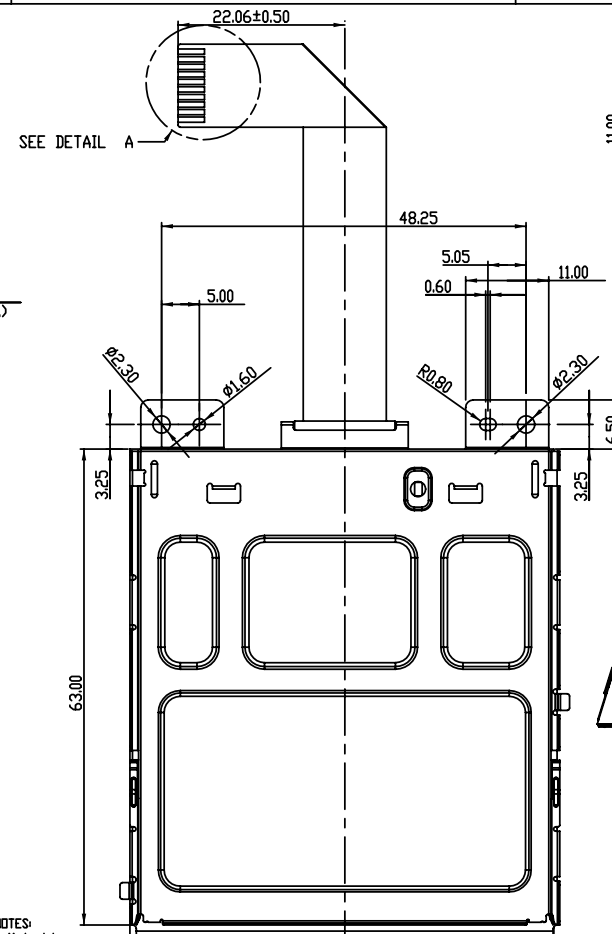
(13.3)
(REF.)

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

*

title

ASSEMBLY

SMART CARD READER

catalog no

*

CUSTOMER DRAWING

sheet 4 of

Rev.

V

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

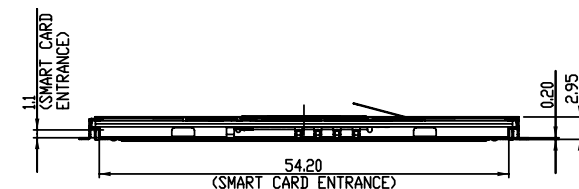
*

CUSTOMER DRAWING

sheet 4 of

Rev.

V



REV F - 2006-04-17

1

2

3 PDM: Rev:V

STATUS: Released

4 Printed: Mar 12, 2010



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D

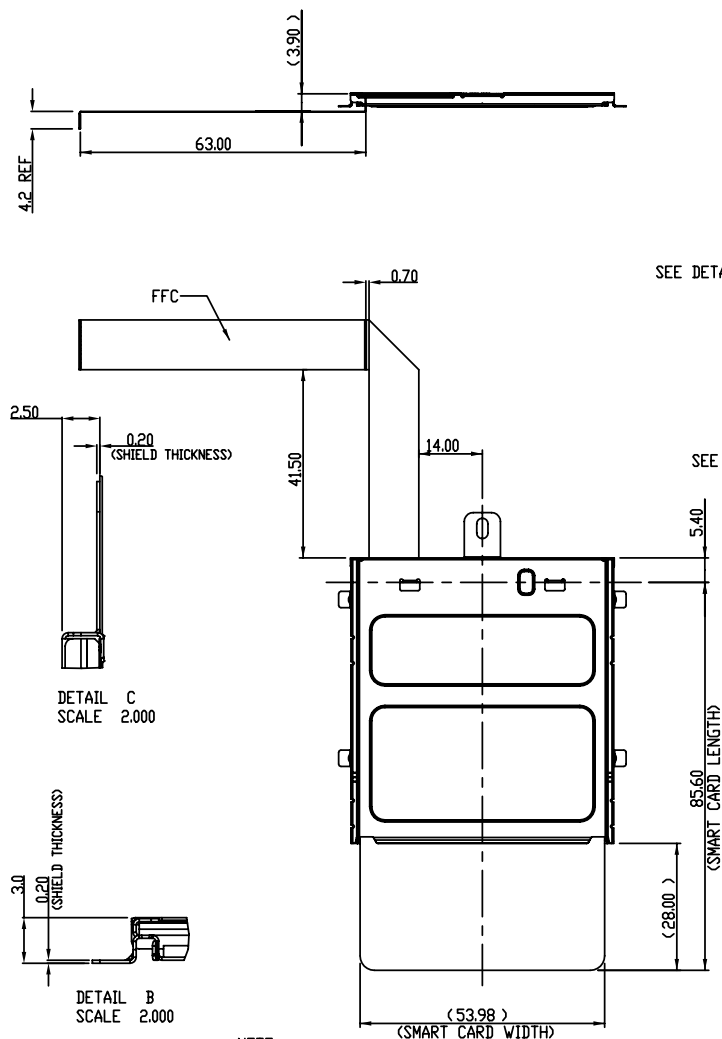
D

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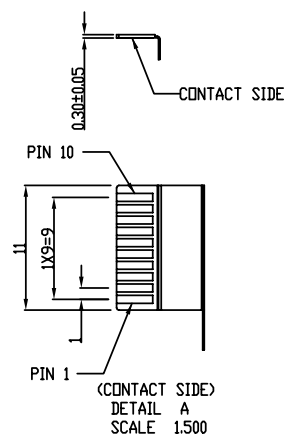


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PRODUCT NO
10010556-004LF

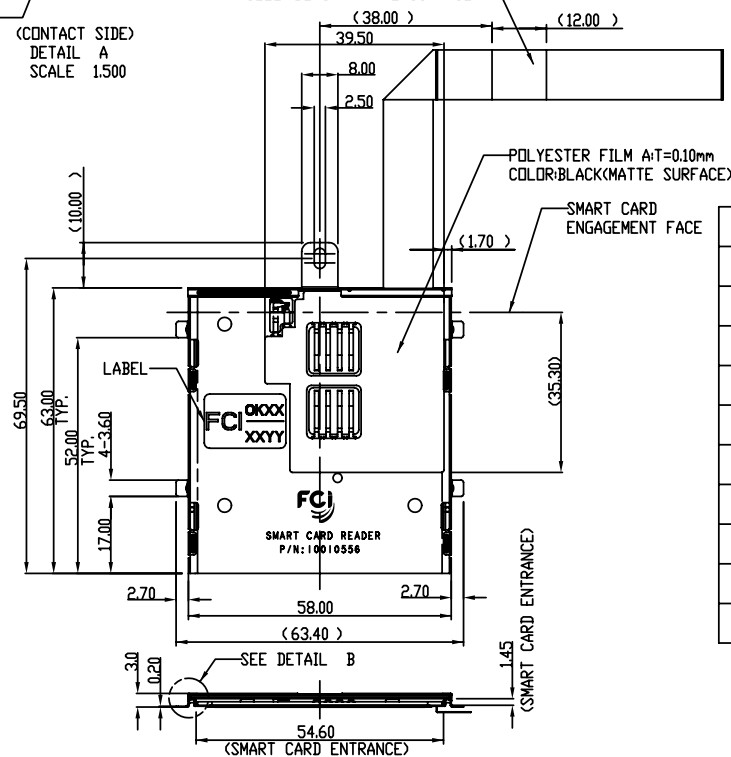


- NOTE:
1. Material:
METAL SHELL: STAINLESS STEEL, T=0.20mm
PCB: FR-4, T=0.80mm
TERMINAL: PHOSPHOR BRONZE.
PLATING SPEC AS BELOW:
ALL OVER NICKEL UNDERPLATING
GOLD PLATING ON CONTACT SURFACE.
MATTE TIN PLATING ON SOLDER TAIL.
FLEXIBLE FLAT CABLE: TOTAL LENGTH=124±2mm
PLATING SPEC AS BELOW:
CONTACT SURFACE: 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



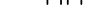
POLYESTER FILM B/T=0.10mm
COLOR: BLACK (MATTE SURFACE)

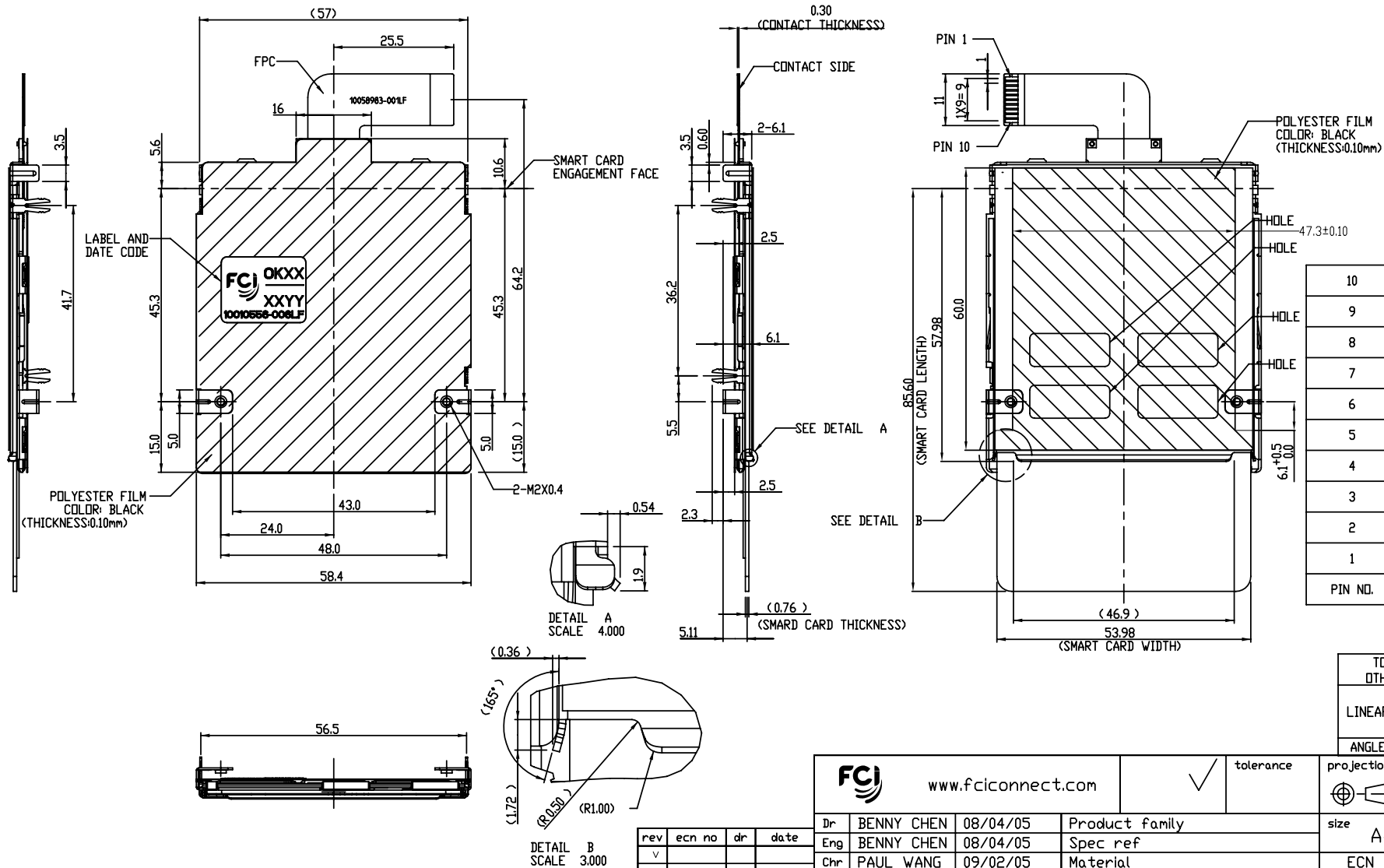
SCALE 0.400



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 				
				Heattreat									
				Plating/Finish									
rev	ecn no	dr	date	Dr	BENNY CHEN	07/06/05				size	A4	Scale	0.500
V				Eng	BENNY CHEN	07/06/05	Product family						
				Chr	Paul Wang	08/11/05	Model Name 10010556-004LF			ECN			
				Appr	Joseph Hsia	08/11/05	Model Revision			REL Level			
						title ASSEMBLY SMART CARD READER					dwg no 10010556		Rev V
				Pro/E file		catalog no					CUSTOEMER DRAWING		sheet 5 of



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

TOLERANCE UNLESS OTHERWISE SPECIFIED	
LINEAR	X.X $\pm$ 0.5
	X.XX $\pm$ 0.3
	X.XXX $\pm$ 0.10
ANGLE	

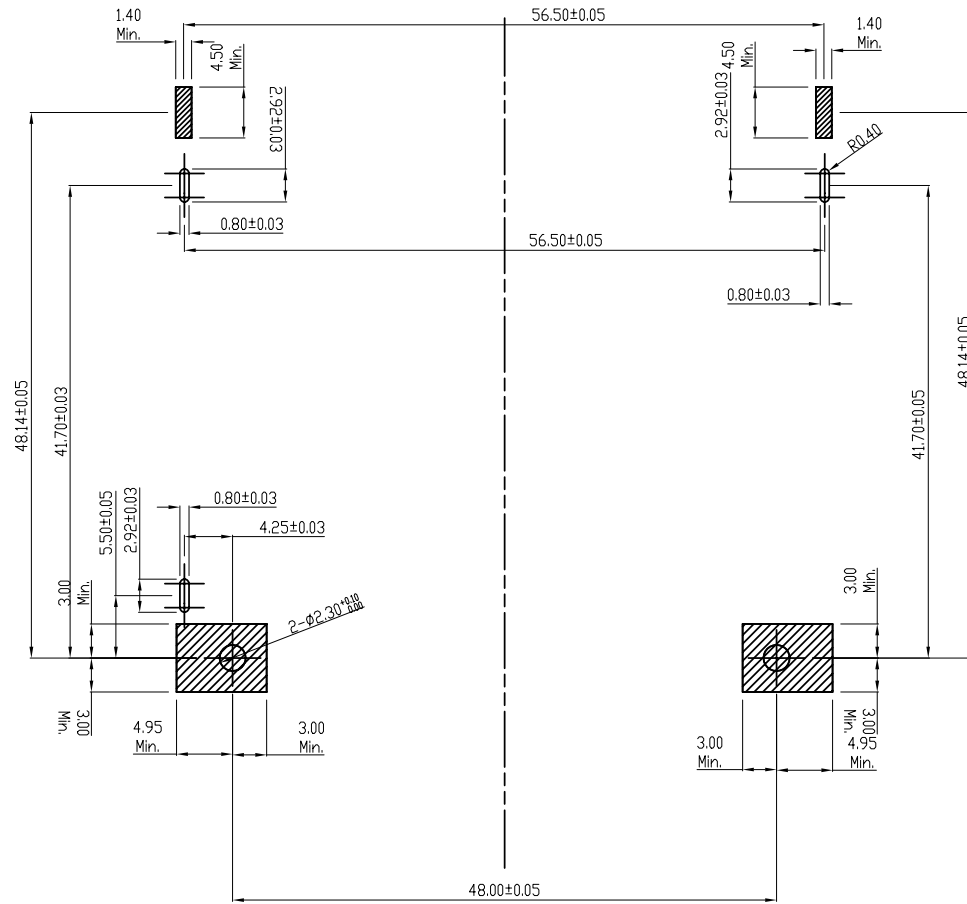
		www.fciconnect.com		✓	tolerance		
Dr	BENNY CHEN	08/04/05	Product family		size	A4	Scale
Eng	BENNY CHEN	08/04/05	Spec ref				1.000
Chr	PAUL WANG	09/02/05	Material		ECN		
Appr	JOSEPH HSIA	09/02/05					
title SMART CARD READER (FPC CABLE) ASSEMBLY					dwg no 10010556		Rev V
catalog no					CUSTOMER DRAWING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

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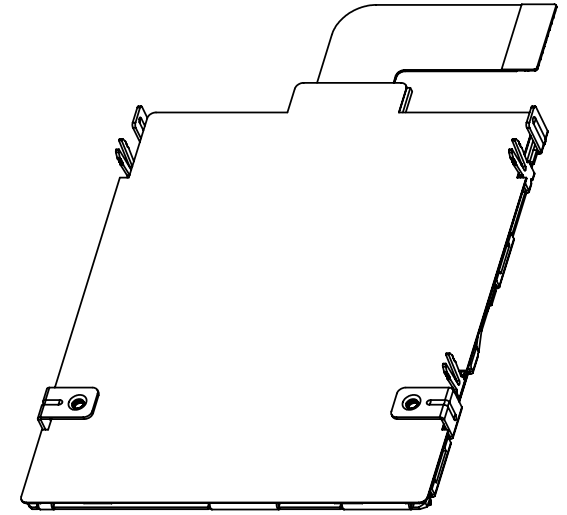


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PRODUCT NO
10010556-006LF



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



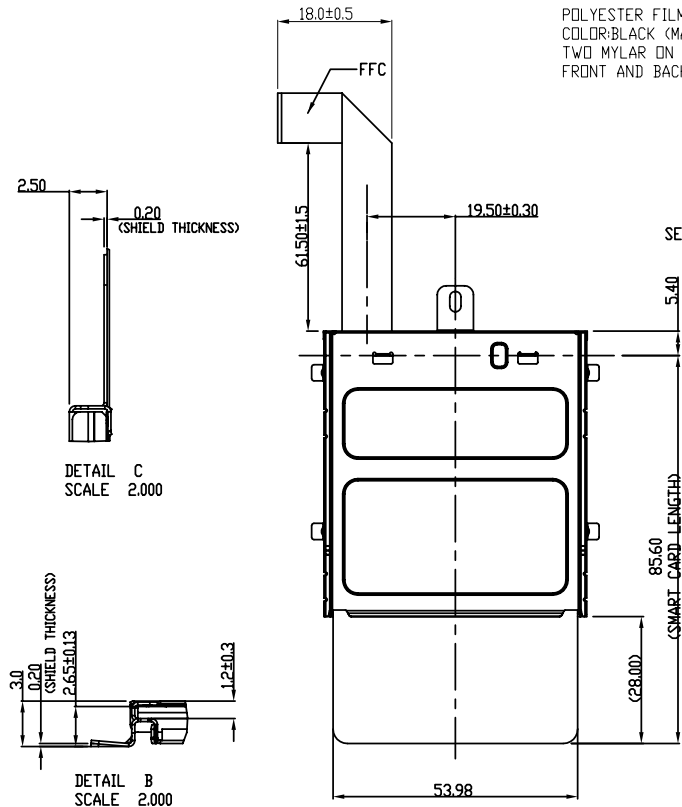
- NOTE:
1. MATERIAL:
METAL SHELL: STAINLESS STEEL, T=0.40mm
PCB: FR-4, T=0.80mm
TERMINAL: PHOSPHOR BRONZE.
PLATING SPEC AS BELOW:
ALL OVER NICKEL UNDERPLATING
GOLD PLATING ON CONTACT SURFACE.
MATTE TIN PLATING ON SOLDER TAIL.
FLEX CIRCUIT CABLE (FPC):
PLATING SPEC AS BELOW:
CONTACT SURFACE: GOLD FLASH 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		

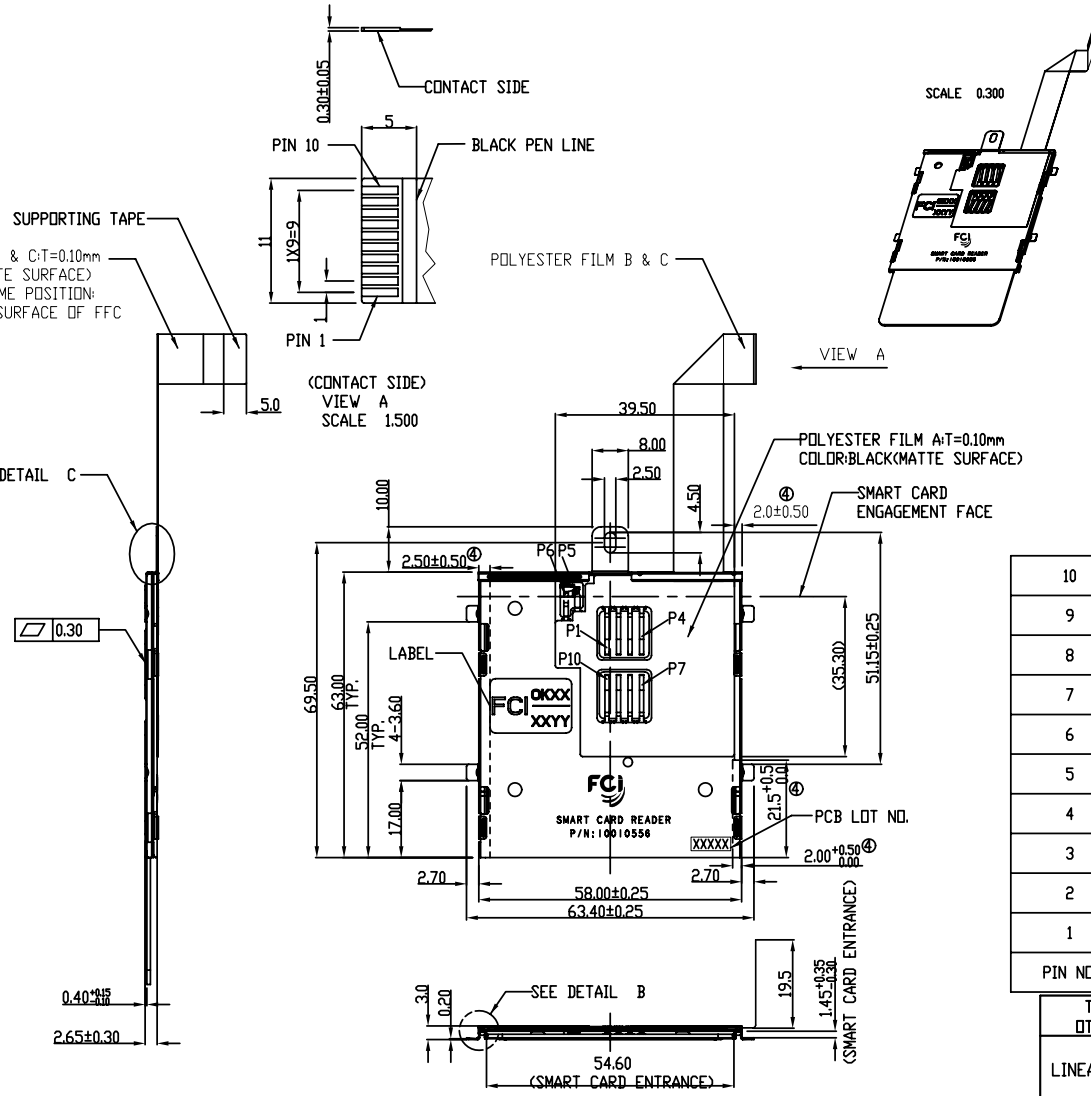


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PRODUCT NO
10010556-005LF

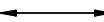


- NOTE:
1. Material:
METAL SHELL: STAINLESS STEEL, T=0.20mm
PCB: FR-4, T=0.80mm
TERMINAL: PHOSPHOR BRONZE.
PLATING SPEC AS BELOW:
ALL OVER NICKEL UNDERPLATING
GOLD PLATING ON CONTACT SURFACE.
MATTE TIN PLATING ON SOLDER TAIL.
FLEXIBLE FLAT CABLE: TOTAL LENGTH=103.5±2mm
PLATING SPEC AS BELOW:
CONTACT 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.

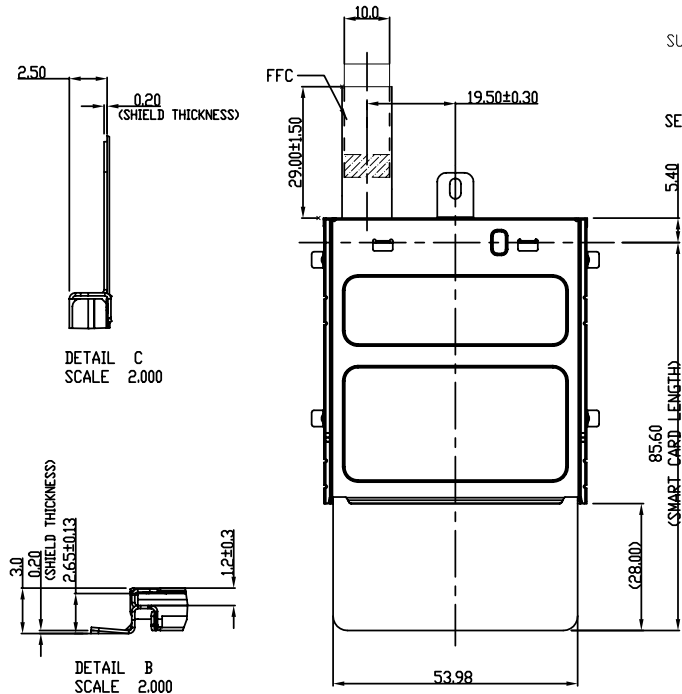


10	RFU
9	I/O
8	V _{pp}
7	GND
6	Sensor 2
5	Sensor 1
4	V _{CC}
3	Reset
2	Clock
1	RFU
PIN NO.	ASSIGNMENT

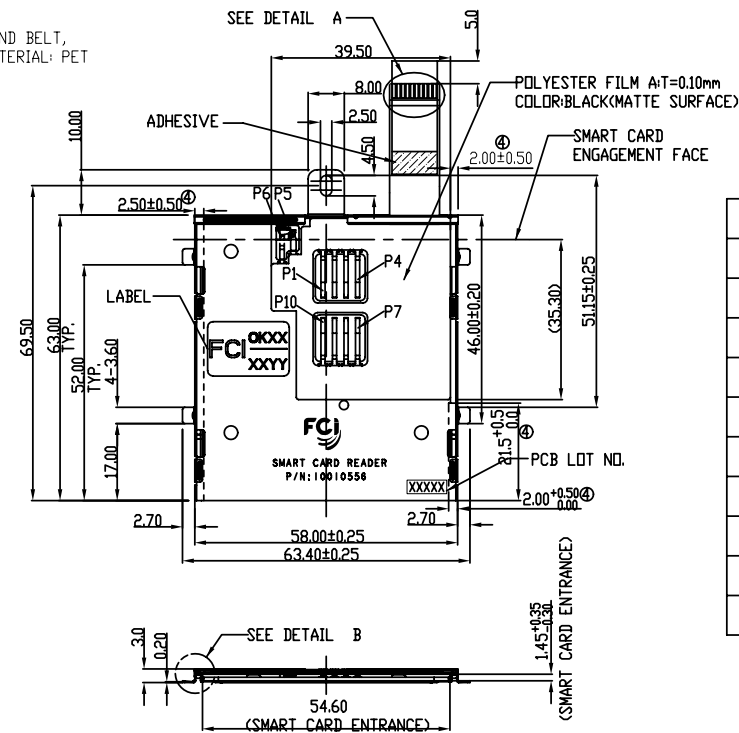
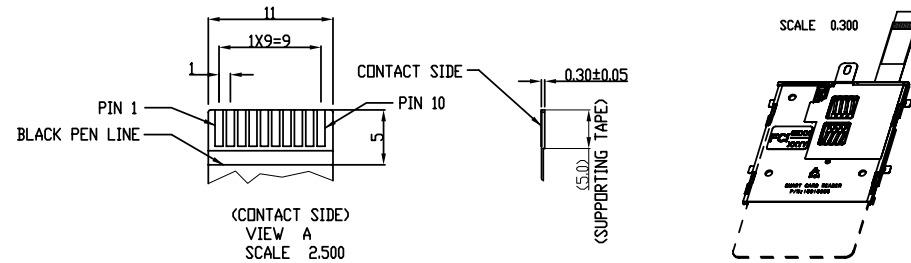
TOLERANCE UNLESS OTHERWISE SPECIFIED	
LINEAR	X.X=±0.25
	X.XX=±0.13
	X.XXX=±0.050
ANGLE	±0°30'

Mark with 10010556-004LF REV. In area indicated by X.....				Material			Spec ref					
				Mat code			✓		tolerance	projection	MM	
				Heat treat								
				Plating/Finish								
				Dr	DANIEL TAO	07/05/07				size	A4	Scale 0.500
rev	ecn no	dr	date	Eng	DANIEL TAO	07/05/07	Product family					
V				Chr	DANIEL TAO	07/05/07	Model Name		10010556-005LF		ECN	
				Appr	JOSEPH HSIA	07/05/07	Model Revision				REL Level	
						title			ASSEMBLY		no 10010556	Rev. V
						SMART CARD READER						
		-	-	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.



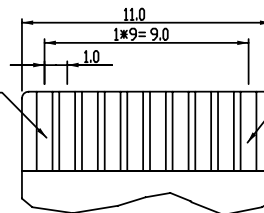
10	RFU
9	I/O
8	Vpp
7	GND
6	Sensor 2
5	Sensor 1
4	VCC
3	Reset
2	Clock
1	RFU
PIN NO.	ASSIGNMENT

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

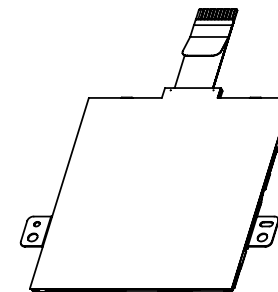
Mark with 10010556-004LF REV. In area indicated by X....				Material			Spec ref									
				Mat code			✓			tolerance		projection		MM		
				Heatreat												
				Plating/Finish												
				Dr	DANIEL TAO	07/05/07				size		A4		Scale 0.500		
rev	ecn no	dr	date	Eng	DANIEL TAO	07/05/07	Product family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

PART NUMBER
0010556-007LF

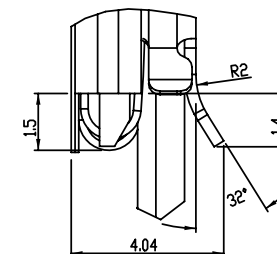
SEE DETAIL A
CONTACT SIDE
PIN 10
(12)
(4)
(2.75)
(1.75)



CONTACT SIDE
VIEW DIRECTION
(4.5)



DETAIL A
SCALE 3.000



DETAIL B
SCALE 5.000

label refer to type t of dell's ppid

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

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.

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surface x		tolerance std x		projection x		MM	
TOLERANCES UNLESS OTHERWISE SPECIFIED		x		x		x	
Dr	BENNY CHEN	07/23/07	ANGULAR	0.X	±0.25	size	A4
Eng	BENNY CHEN	07/23/07	LINEAR	0.XX	±0.15	Scale	0.500
Chr	PAUL WANG	09/10/07	0° ±3°	0.XXX	±	ECN	*
Appr	JOSEPH HSIA	09/11/07	Product family			Spec ref	*
title		ASSEMBLY SMART CARD READER		dwg no		10010556	
catalog no		* CUSTOMER DRAWING		sheet 10 of		Rev. V	

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

A

B

C

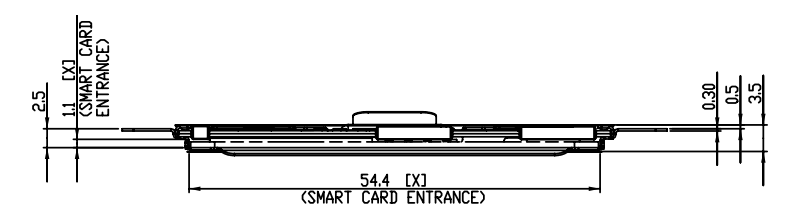
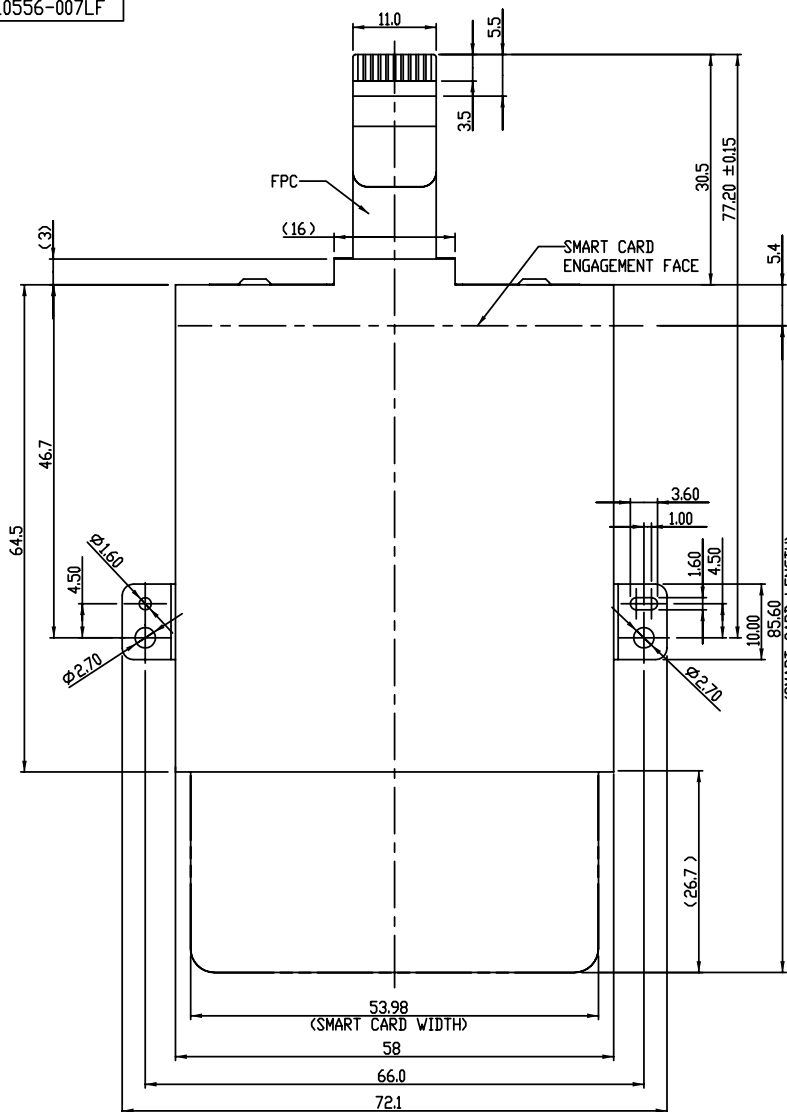
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A

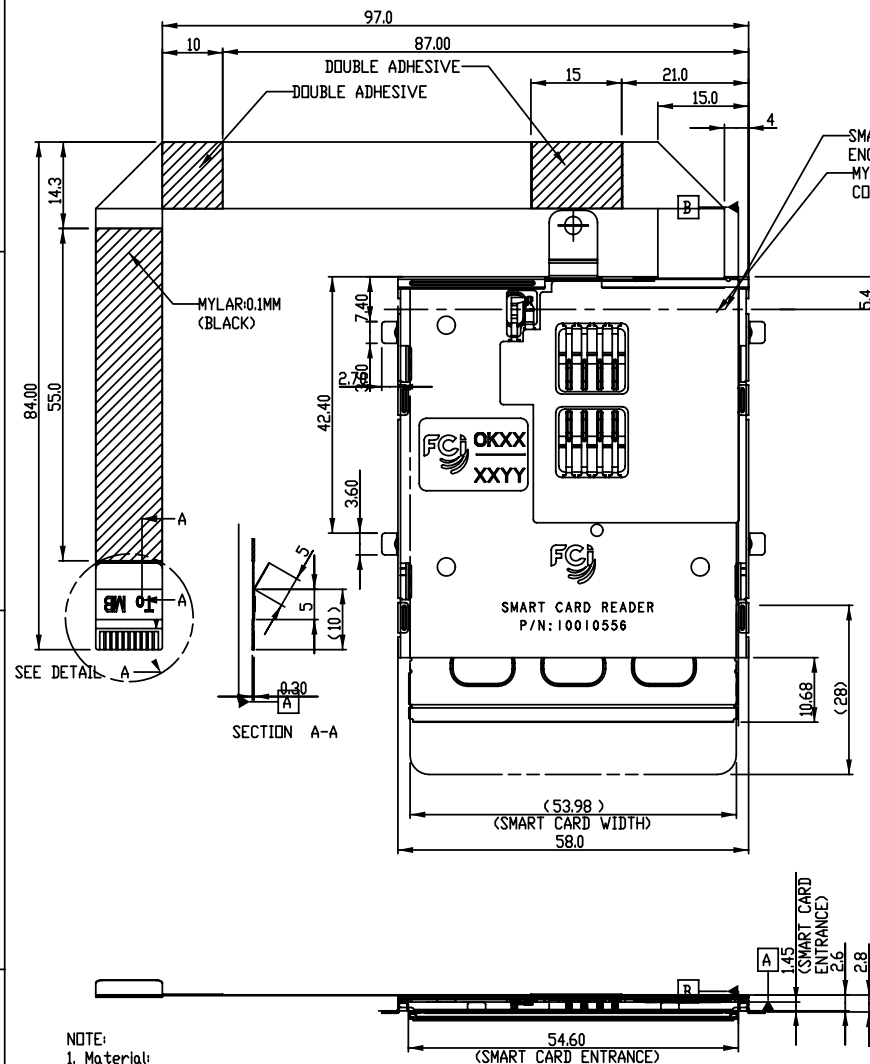
B

C

D



PART NUMBER
0010556-009LF



ADHESIVE AREA
(STICKED BETWEEN
INTERNAL SURFACES)

SMART CARD
ENGAGEMENT FACE
MYLAR T=0.10mm
COLOR: BLACK

ADHESIVE AREA
(STICKED BETWEEN
INTERNAL SURFACES)

ADHESIVE AREA
(STICKED BETWEEN
INTERNAL SURFACES)

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ADHESIVE AREA
(STICKED BETWEEN
INTERNAL SURFACES)

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	x	
			TOLERANCES UNLESS OTHERWISE SPECIFIED			A4
			ANGULAR	LINEAR	0.X	
					0.XX	Scale
			0° ±X'		0.XXX	0.500
			Product family			ECN
			Spec ref			*
			ASSEMBLY			Rev.
			SMART CARD READER			V
			catalog no			
			* CUSTOMER DRAWING			sheet 11 of

PIN NO.	ASSIGNMENT	PIN NO. DEFINED BY ISO-7816
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

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

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

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

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

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

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

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

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

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

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

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

10	RFU4	C4
9	CLOCK	C3
8	RESET	C2
7	VCC	C1
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5	Sensor 1	
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3	VPP	C6
2	I/O	C7
1	RFU8	C8

10	RFU4	C4
9	CLOCK	C3
8	RESET	C2
7	VCC	C1
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5	Sensor 1	
4	GND	C5
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2	I/O	C7
1	RFU8	C8

10	RFU4	C4
9	CLOCK	C3
8	RESET	C2
7	VCC	C1
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5	Sensor 1	
4	GND	C5
3	VPP	C6
2	I/O	C7
1	RFU8	C8

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

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

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

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

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

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

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

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

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

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

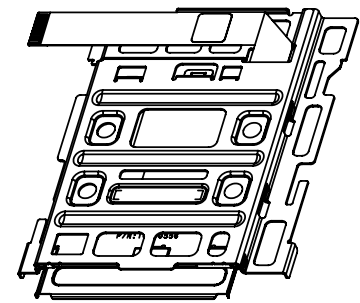
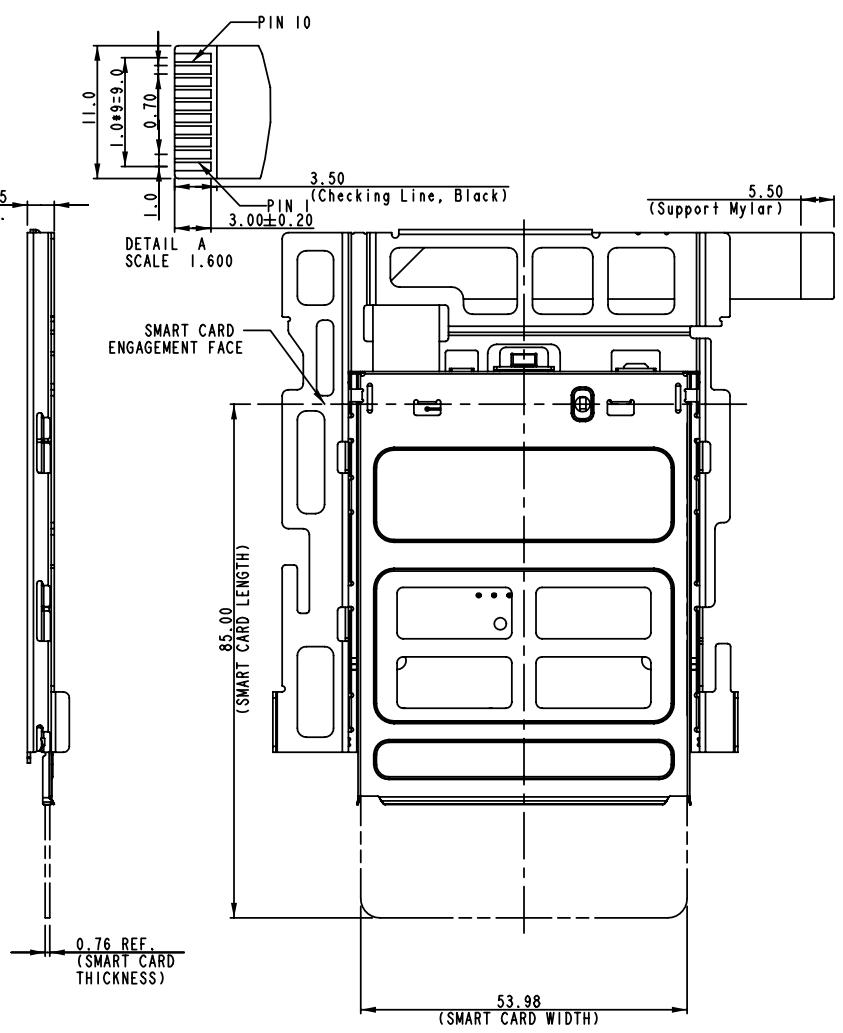
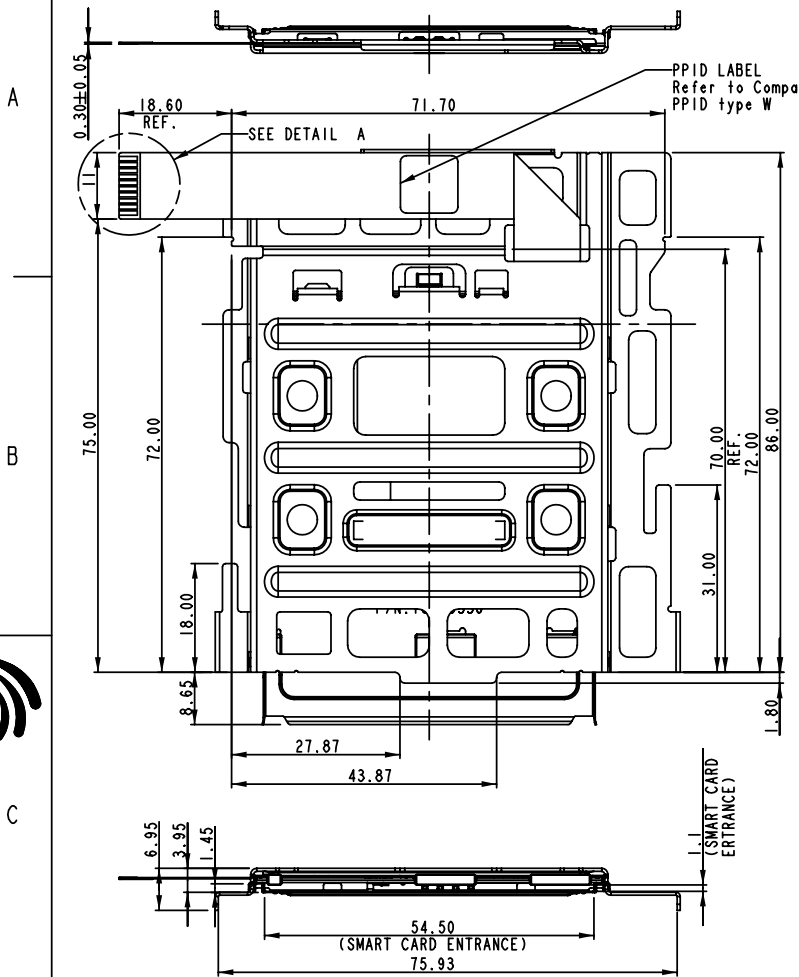
10	RFU4	C4
9	CLOCK	C3
8	RESET	C2
7	VCC	C1
6	Sensor 2	
5	Sensor 1	
4	GND	C5
3	VPP	C6
2	I/O	C7
1	RFU8	C8

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



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PART NUMBER
10010556-010LF



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	
PIN NO.	ASSIGNMENT	PIN NO. DEFINED BY ISO-7816

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.

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	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

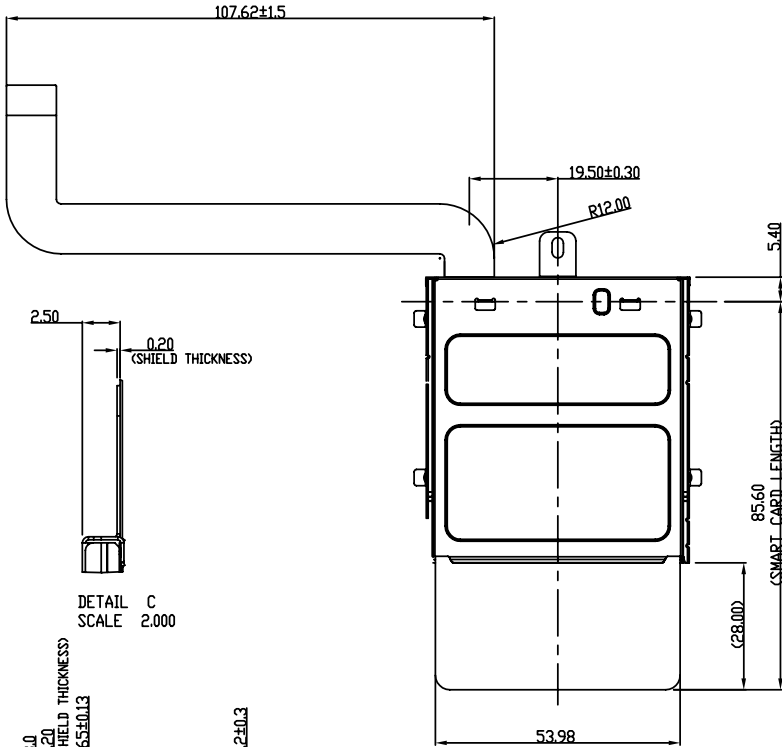
www.fciconnect.com			surface x	tolerance x	std x	projection ⊕	MM ↔
			TOLERANCES UNLESS OTHERWISE SPECIFIED			size A4	Scale 1.000
Dr	BENNY CHEN	02/05/08	ANGULAR	0.X	±0.3		
Eng	BENNY CHEN	02/05/08	LINEAR	0.XX	±.20		
Chr	PAUL WANG	02/13/08	0° ±X°	0.XXX	±X		
Appr	JOSEPH HSIA	02/15/08	Product family			ECN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



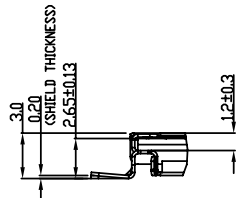
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PRODUCT NO
10010556-011LF



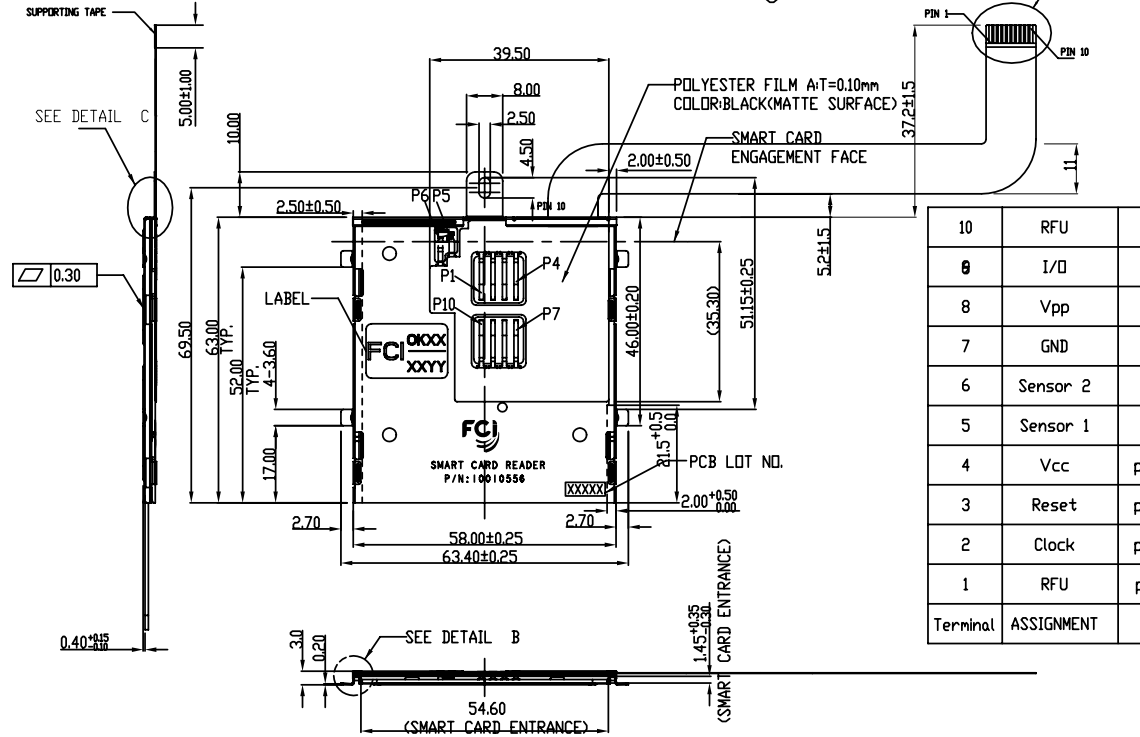
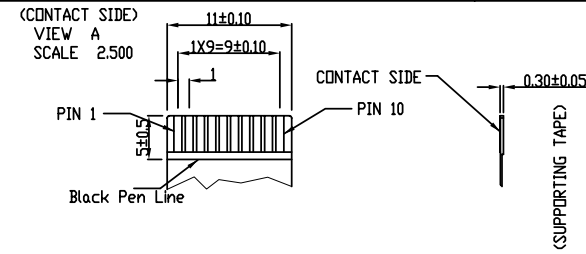
DETAIL C
SCALE 2.000



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.

FPC PLATING SPEC AS BELOW:
CONTACT SURFACE: GOLD FLASH.
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.

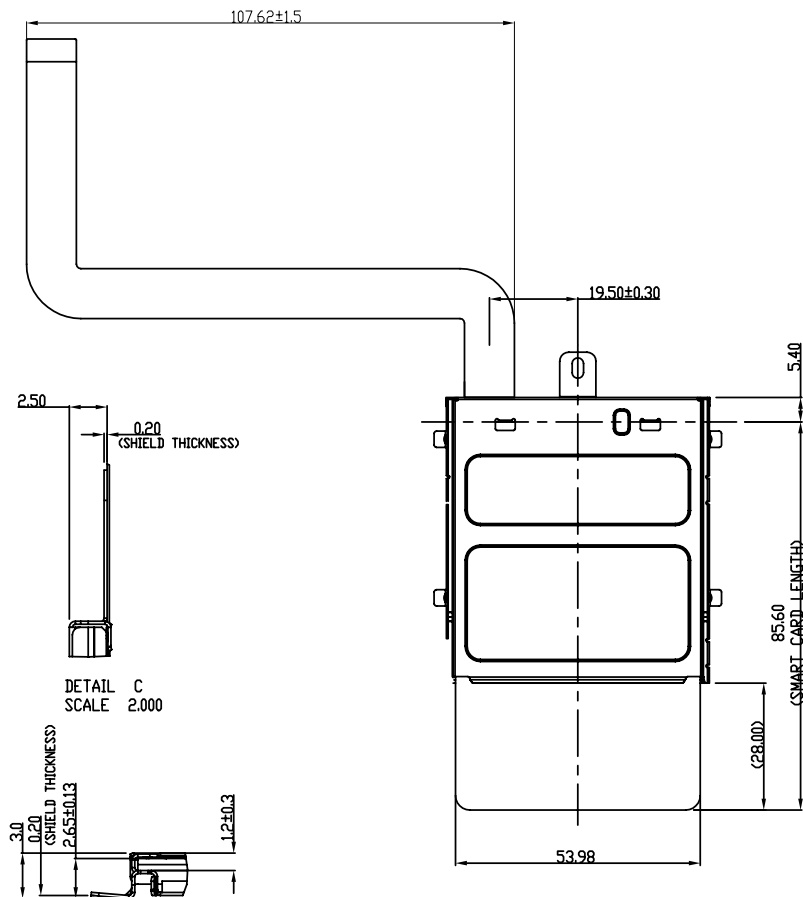


10	RFU	10
9	I/O	9
8	Vpp	8
7	GND	7
6	Sensor 2	6
5	Sensor 1	5
4	Vcc	pin 4
3	Reset	pin 3
2	Clock	pin 2
1	RFU	pin 1
Terminal	ASSIGNMENT	FPC

TOLERANCE UNLESS OTHERWISE SPECIFIED	
LINEAR	X.X=±0.5 X.XX=±0.15 X.XXX=±0.050
ANGLE	±0°30'

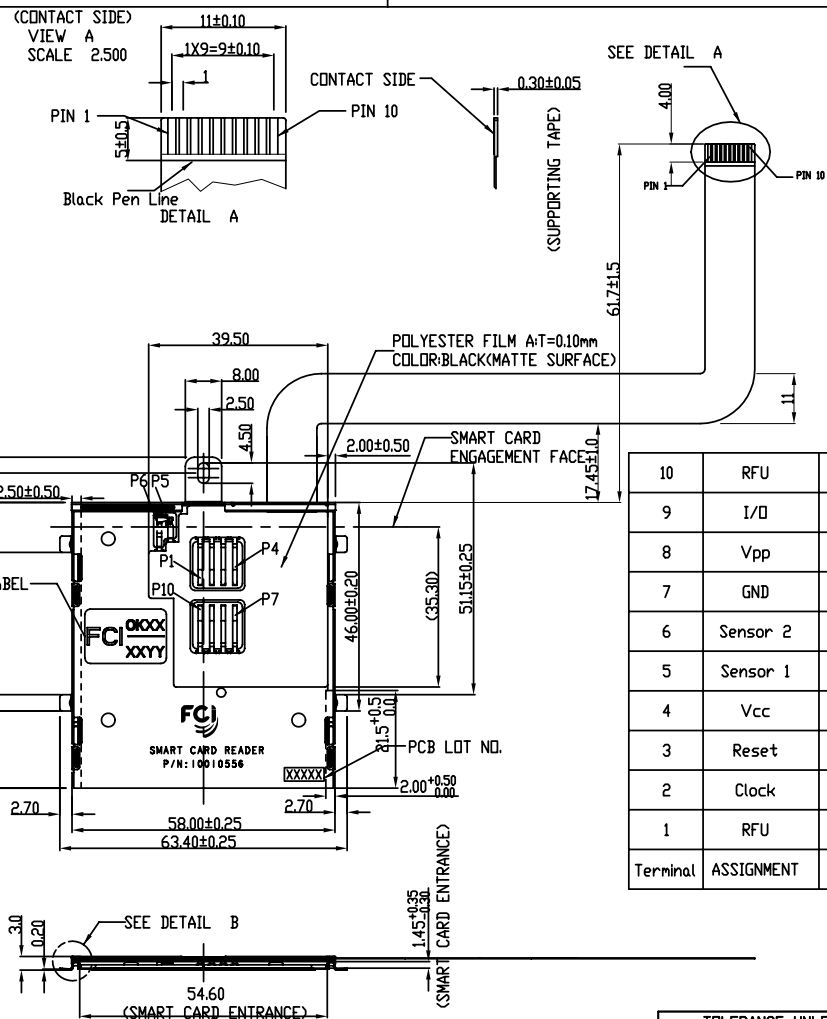
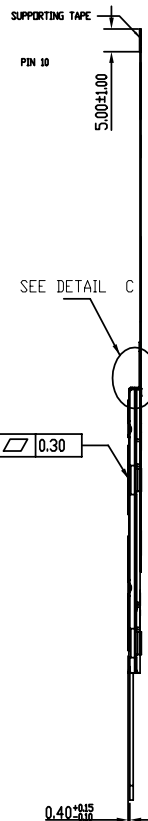
Mark with 10010556-004LF REV. In area indicated by X.....				Material			Spec ref				
				Mat code			✓	tolerance	projection 	MM 	
				Heattreat							
				Plating/Finish							
				Dr	MIAD SH	05/08/08					
rev	ecn no	dr	date	Eng	MIAD SH	05/08/08	Product family		size A4	Scale 0.500	
N	N08-0045	SH	05/08/08	Chr	DANIEL TAO	05/08/08	Model Name		ECN		
V				Appr	JOSEPH HSIA	05/08/08	Model Revision		REL Level		
						title ASSEMBLY SMART CARD READER			dwg no 10010556	Rev. V	
				Pro/E file	catalog no			CUSTOMER DRAWING		sheet 13 of	

PRODUCT NO
10010556-012LF



- NOTE:
- 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.

FPC PLATING SPEC AS BELOW:
CONTACT SURFACE: GOLD FLASH.
SOLDER TAIL: TIN PLATING.
 - CARD DETECTION SWITCH NORMALLY OPEN WITHOUT MATING CARD
 - REFERENCE SPECIFICATION:
PRODUCT SPEC. GS 12-231
PACKING SPEC. GS 14-829
 - THE AREA IS PROHIBITED TO PASTE THE MYLAR AND LABEL.



10	RFU	10
9	I/O	9
8	Vpp	8
7	GND	7
6	Sensor 2	6
5	Sensor 1	5
4	Vcc	4
3	Reset	3
2	Clock	2
1	RFU	1
Terminal	ASSIGNMENT	FPC

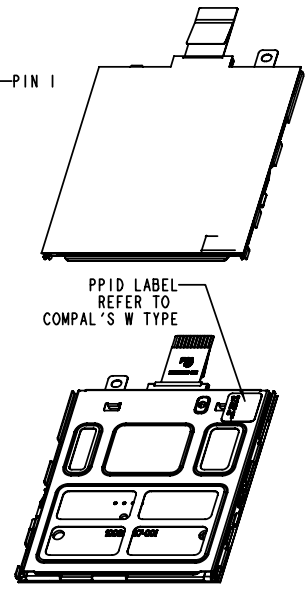
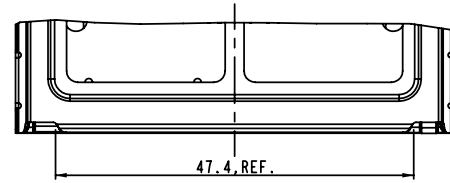
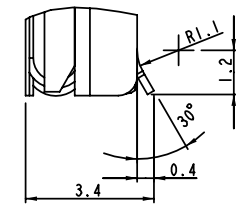
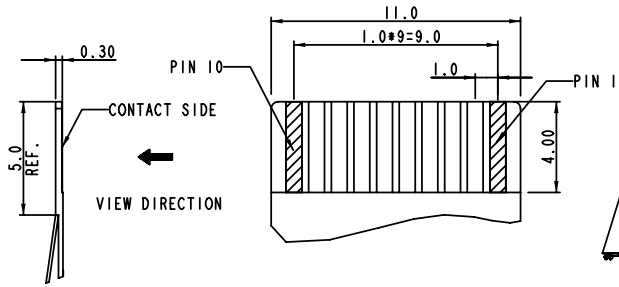
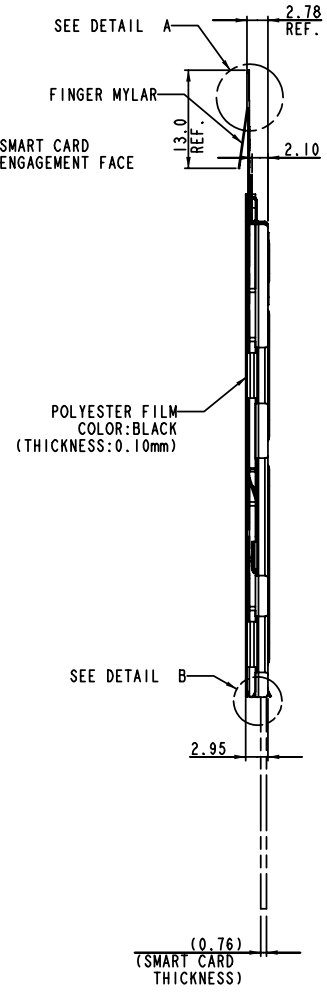
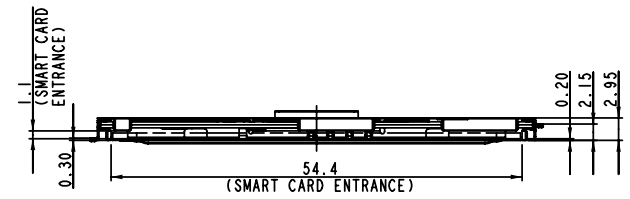
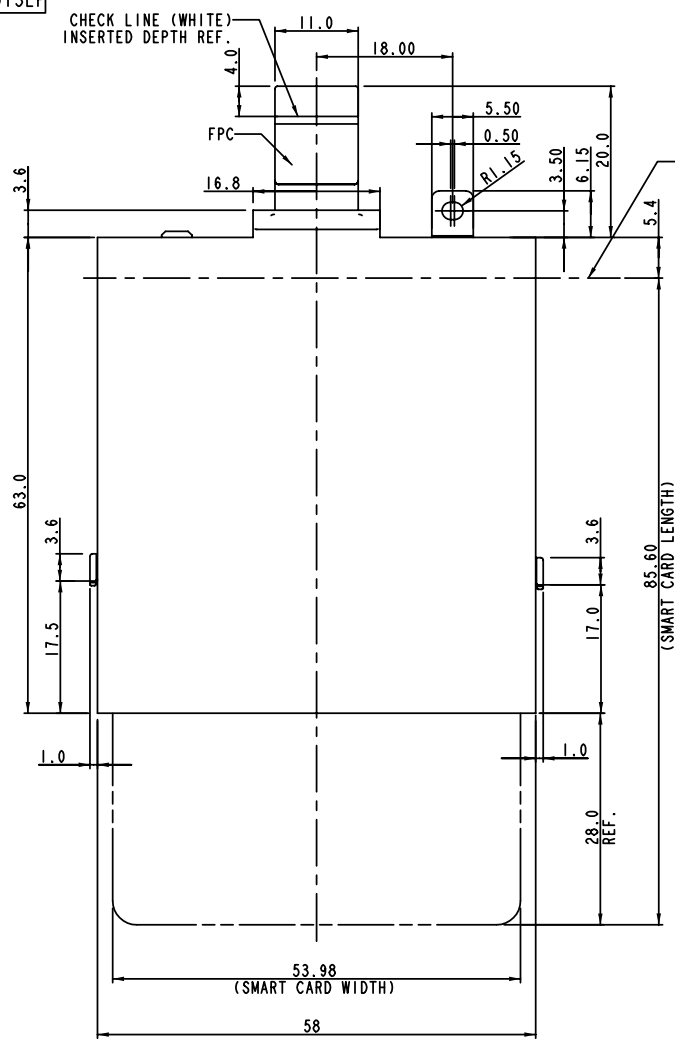
TOLERANCE UNLESS OTHERWISE SPECIFIED		
LINEAR	X.X=±0.5	
	X.XX=±0.15	
	X.XXX=±0.050	
ANGLE	±0°30'	

Mark with 10010556-004LF REV. In area indicated by X.....				Material		Spec ref								
				Mat code		✓	tolerance	projection 	 MM					
				Heat treat										
				Plating/Finish										
rev	ecn no	dr	date	Dr	MIAD SH	05/08/08	size		A4	Scale	0.500			
N	N08-0045	SH	05/08/08	Eng	MIAD SH	05/08/08	Product family							
V				Chr	DANIEL TAO	05/08/08	Model Name		10010556-008LF	ECN				
				Appr	JOSEPH HSIA	05/08/08	Model Revision		REL Level					
						title		ASSEMBLY		dwg no		10010556	Rev	V
								SMART CARD READER						
		-	-	Pro/E file		catalog no				CUSTOMER DRAWING		sheet 14 of		



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PART NUMBER
10010556-013LF



- NOTE:
- 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.
 - CARD DETECTION SWITCH NORMALLY OPEN WITHOUT MATING CARD
 - 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

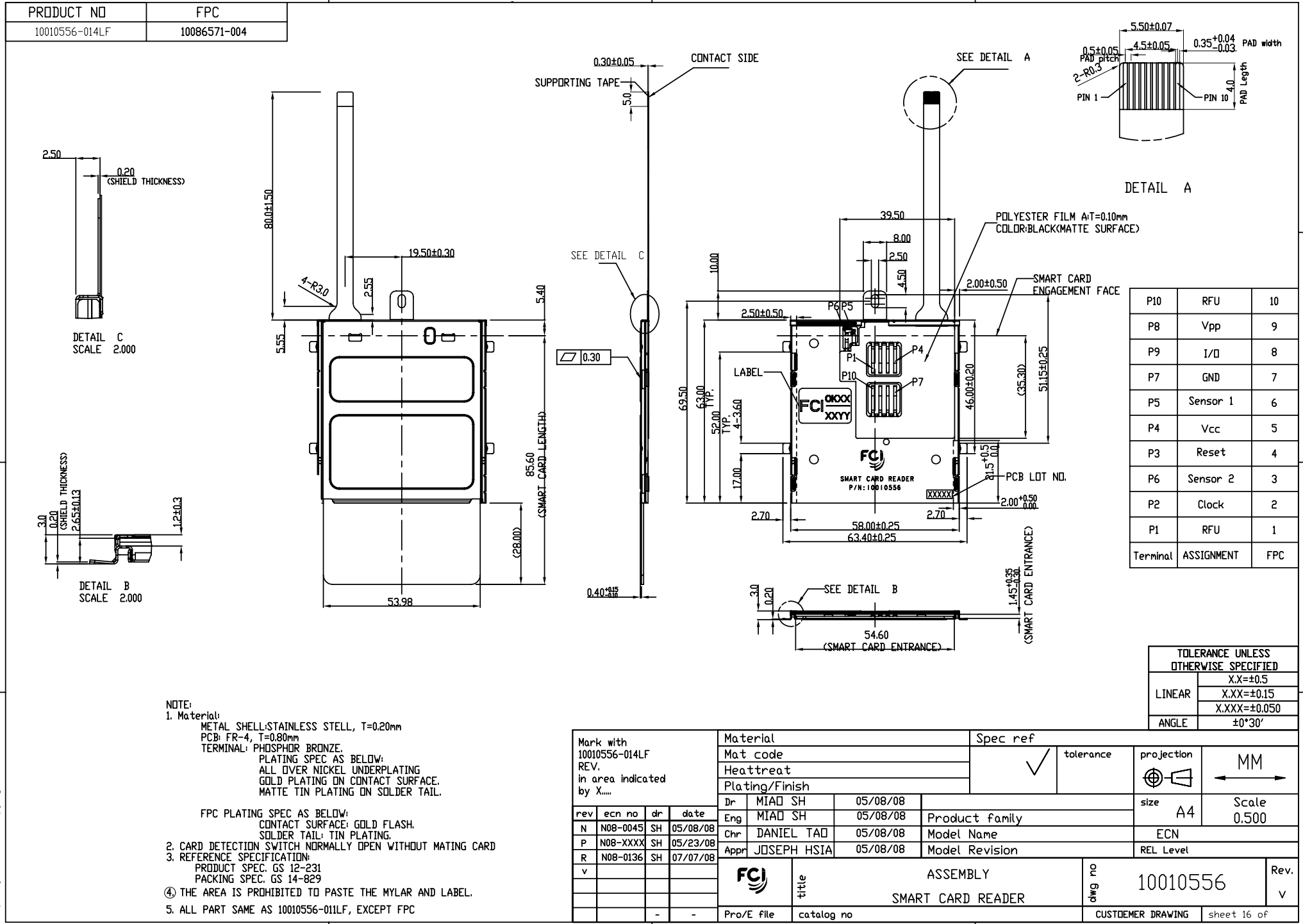
rev	ecn no	dr	date
R	N08-0136	BENNY	05/08/08
S	N08-0212	SH	10/06/08
V	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

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	±	ECN		*	
Appr	JOSEPH HSIA	06/16/08	Product family					Spec ref *		
			title ASSEMBLY SMART CARD READER				dwg no 10010556		Rev. V	
			catalog no *				CUSTOMER DRAWING		sheet 15 of	

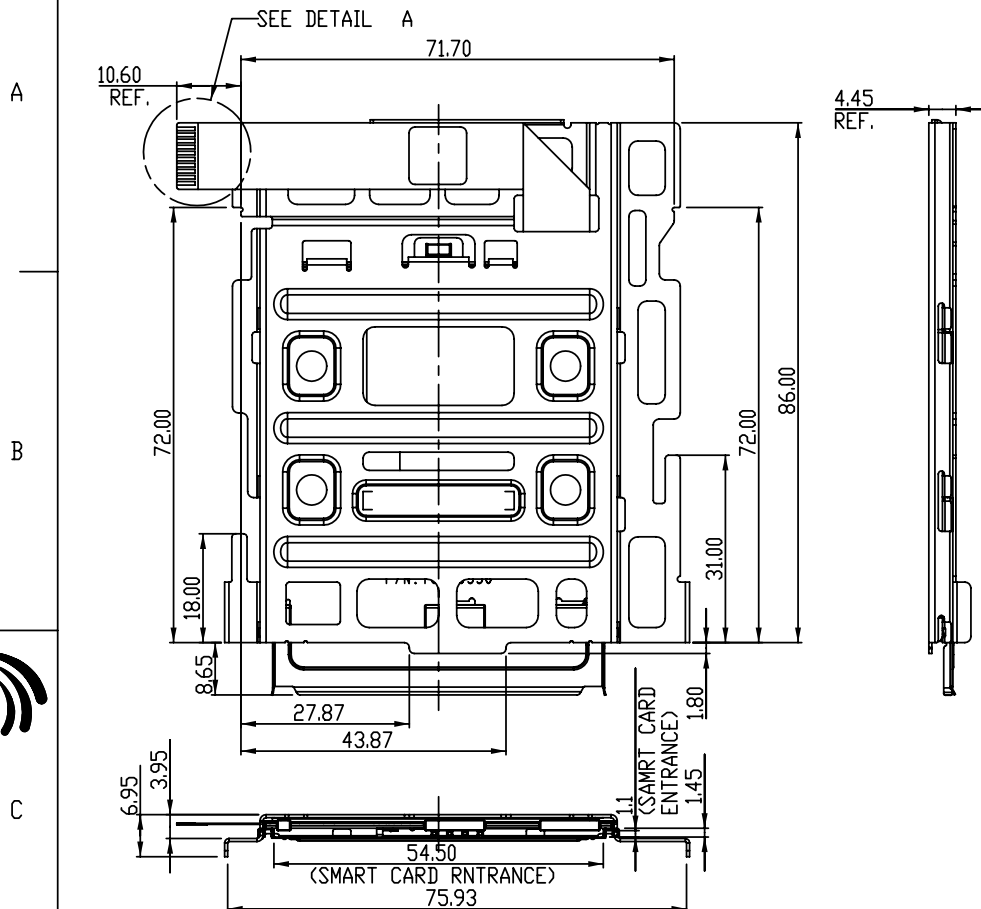


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PRODUCT NO.
10010556-016LF



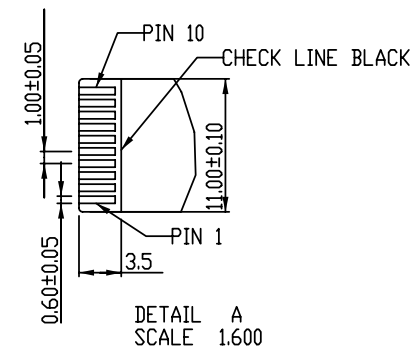
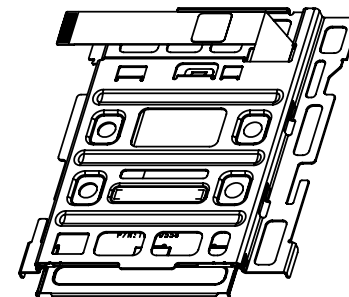
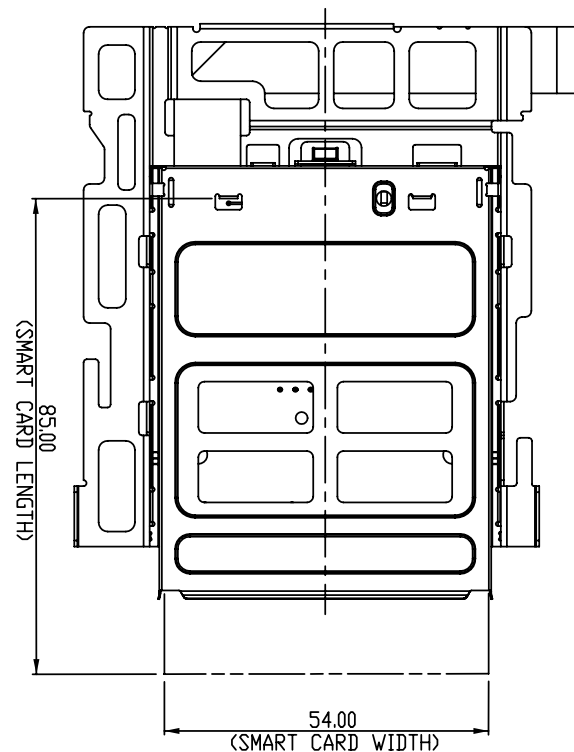
NOTE:

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.

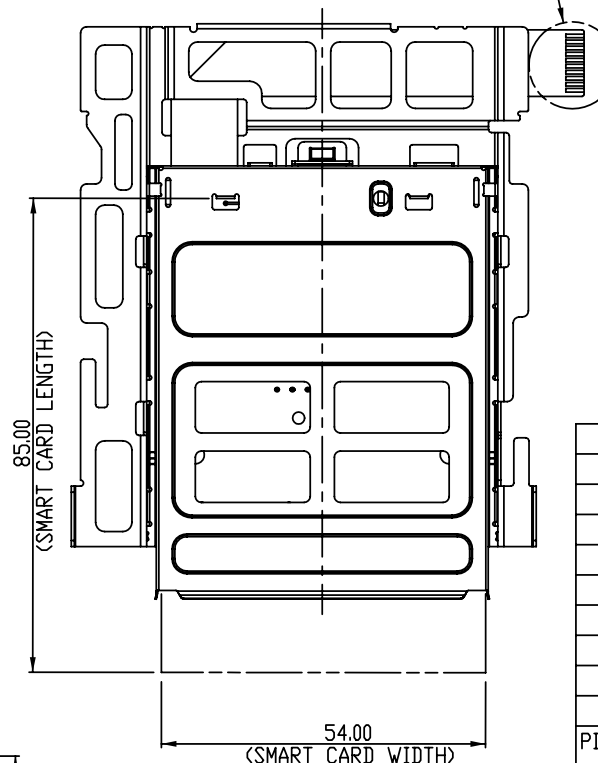
2. CARD DETECTION SWITCH NORMALLY OPEN WITHOUT MATING CARD
3. REFERENCE SPECIFICATION:
PRODUCT SPEC: GS-12-231.
PACKING SPEC: GS-14-829.



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 1.000		
Eng	MIAD SH	04/14/09				0.XX	±0.2				
Chr	TAD DANIEL	04/14/09	0°	±2°		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								

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



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

PIN 10

PIN 1

3.00±0.20

0.60

1.00

11.0

DETAIL A

SCALE 1:600

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°	±2°		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			

PRODUCT NO

10010556-018LF

A

B

C

D

A

B

C

D

SEE DETAIL A

FFC

75.00

9.10

85.60
(SMART CARD LENGTH)

(28.00)

(53.98)
(SMART CARD WIDTH)DETAIL C
SCALE 2.000DETAIL 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.

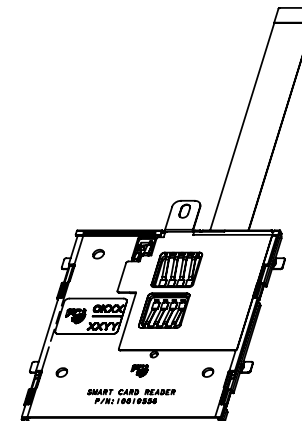
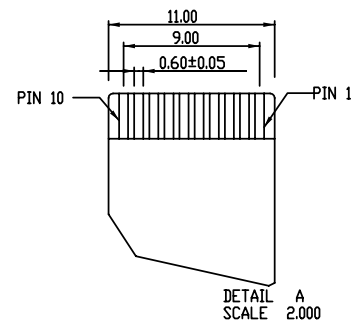
SOLDER TAIL: TIN PLATING.

2. CARD DETECTION SWITCH NORMALLY OPEN WITHOUT MATING CARD

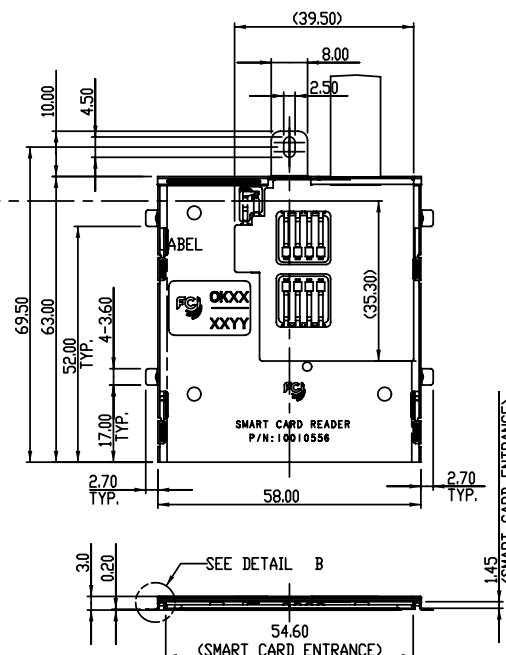
3. REFERENCE SPECIFICATION:

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	0.500
Eng	MIAD SH	09/25/09			0.XX	±0.25				
Chr	TAD DANIEL	09/25/09			0.XXX	±0.13				
Appr			Product family					ECN		
			Spec ref							
			title SMART CARD READER			dwg no 10010556			Rev. V	
catalog no										
						sheet 20 of				