

HSSDC, Receptacle, Single and Double Bay Products

1. SCOPE

This specification covers the acceptable and not acceptable conditions for HSSDC, Receptacle, Single and Double Bay Family of products.

2. APPLICABLE DOCUMENTS

The following documents constitute a part of this specification to the extent specified herein. Unless otherwise specified, the latest edition of the document applies.

- 2.1. Specification
115-54: Die Casting, Requirements for

3. TABLE OF CONTENTS

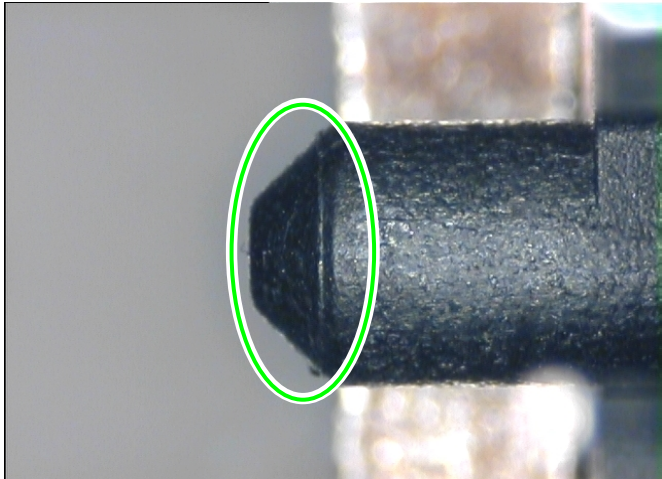
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4. INSPECTION CRITERIA

Under magnification glasses visually inspect.

5. COMPONENT CRITERIA

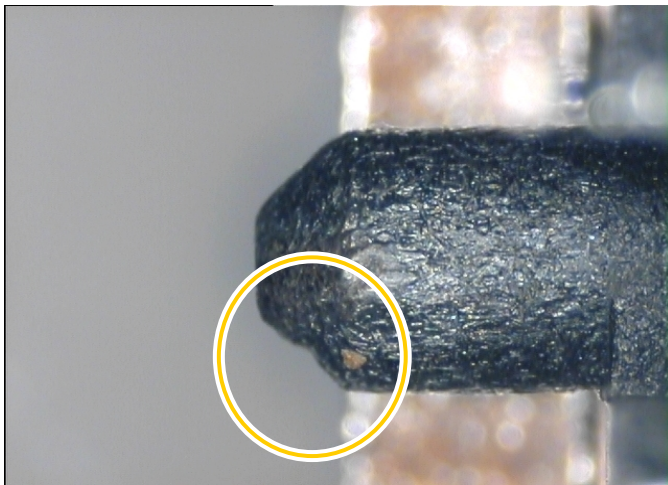
5.1. Housing



ACCEPTABLE

Housing (Normal Shape)

Figure 1

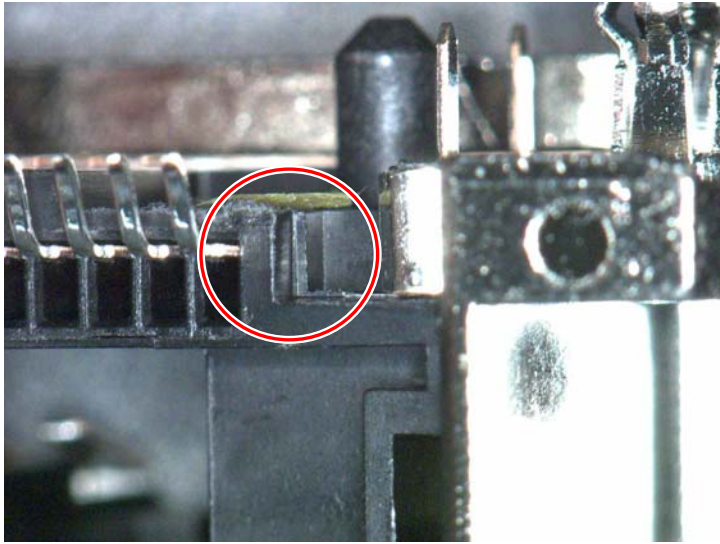


ACCEPTABLE - marginally

Housing Post Non-Fill

NOTE Non-Fill “rounding” of features at post tip that does not functionally affect lead-in.

Figure 2

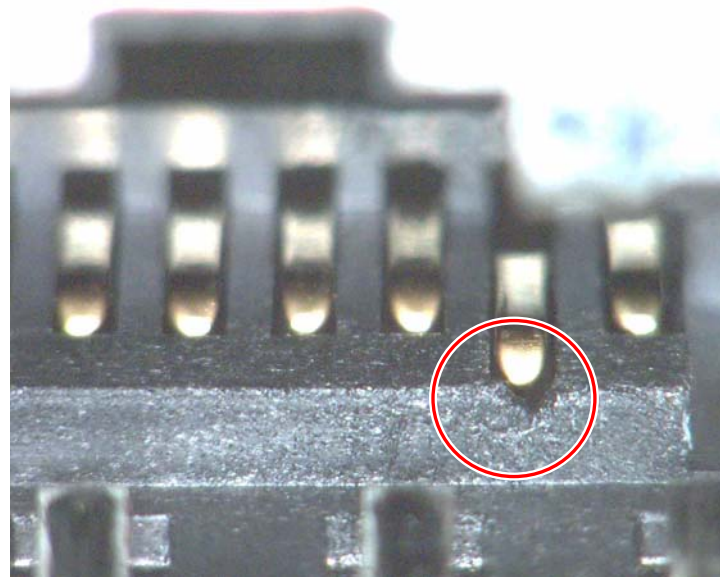


NOT ACCEPTABLE

Flash and Non-Fill at Contact
Circuit Lead in Area

Flash above 0.38mm Spec to 0.48mm

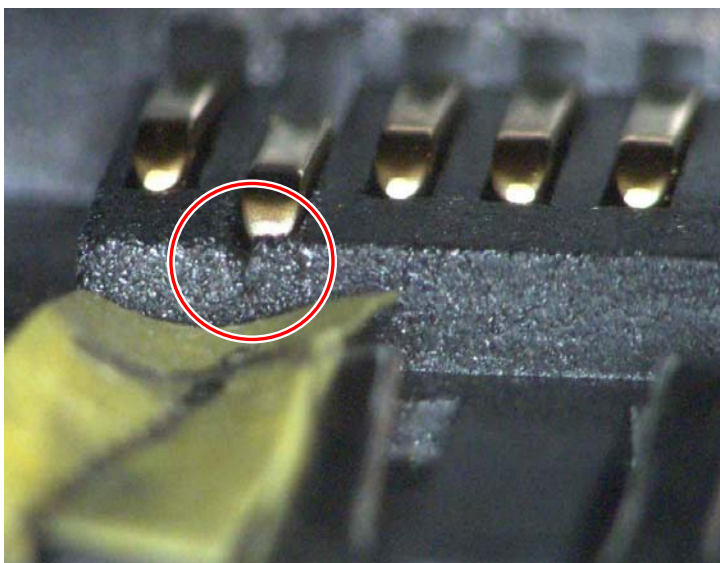
Figure 3



NOT ACCEPTABLE

Flash and Non-Fill at Contact
Circuit Lead in Area

Figure 4

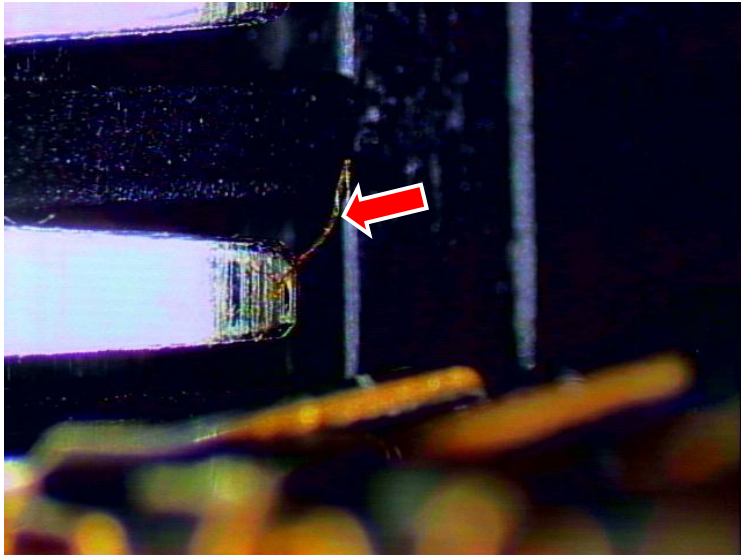


NOT ACCEPTABLE

Flash and Non-Fill at Contact
Circuit Lead in Area

Figure 5

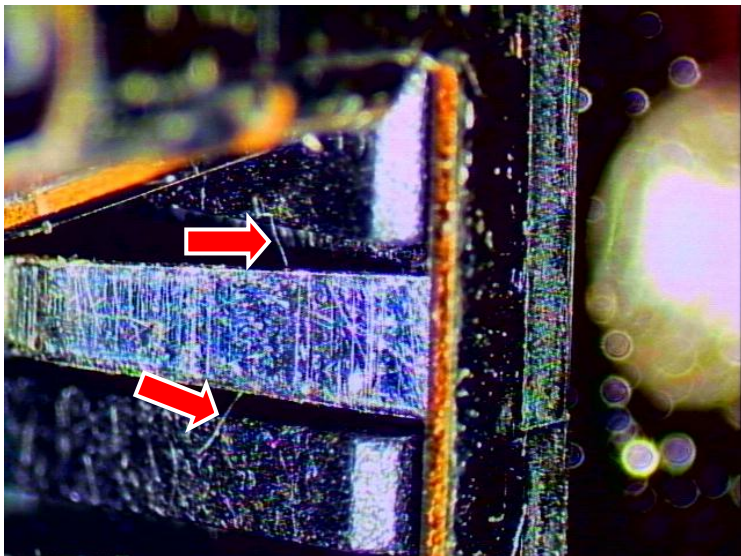
5.2. Stamped Ground Finger



NOT ACCEPTABLE

Slivers on Ground Fingers

Figure 6



NOT ACCEPTABLE

Slivers on Ground Fingers

Figure 7



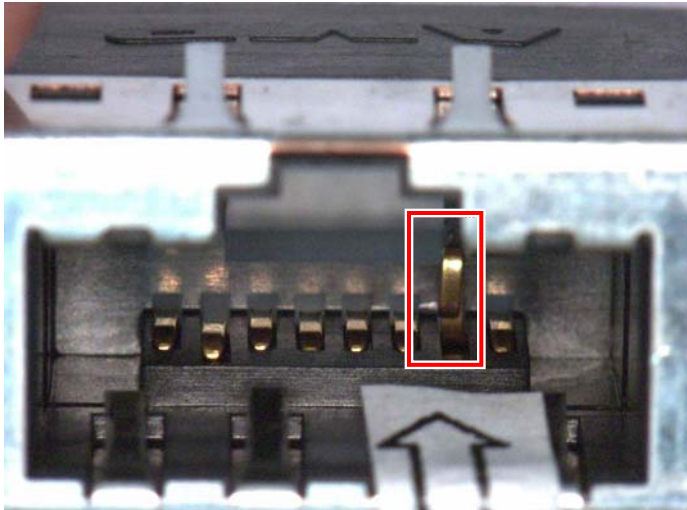
ACCEPTABLE / NOT ACCEPTABLE

Bent Ground Fingers

NOTE *Inspect for this condition before Assembly of Housing.*

Figure 8

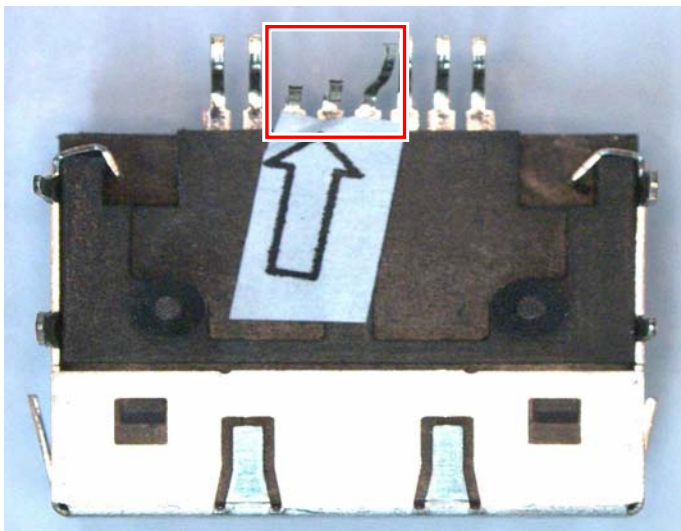
5.3. Receptacle Contact



NOT ACCEPTABLE

Buckled Contact

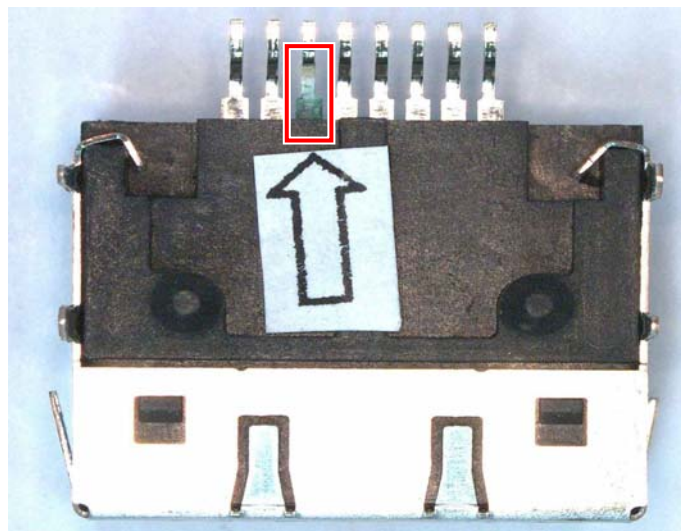
Figure 9



NOT ACCEPTABLE

Bent Tine

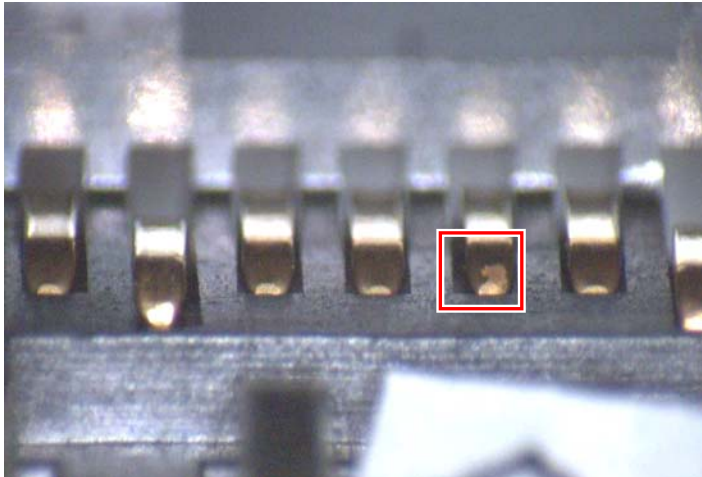
Figure 10



NOT ACCEPTABLE

Corroded Tine

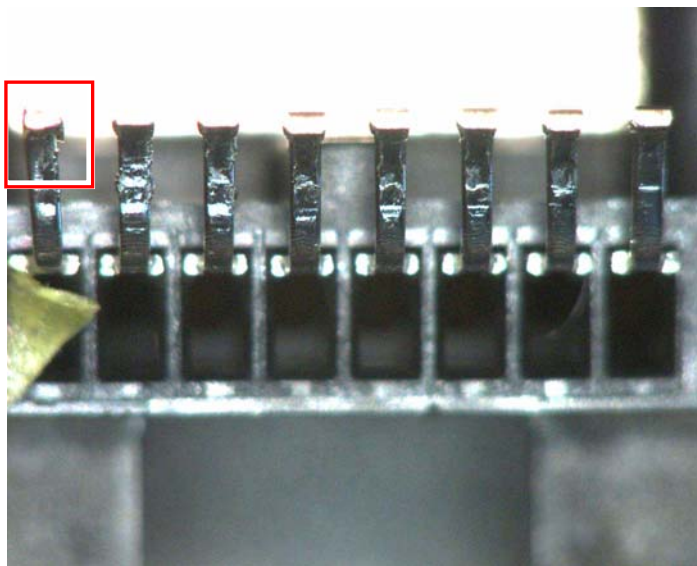
Figure 11



NOT ACCEPTABLE

Flaked Gold
Plating on Contact

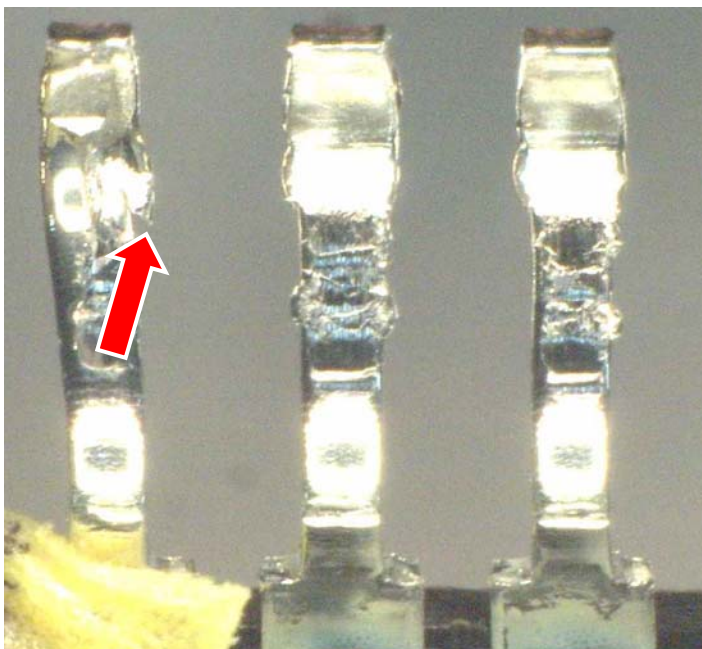
Figure 12



NOT ACCEPTABLE

Burr on Lead

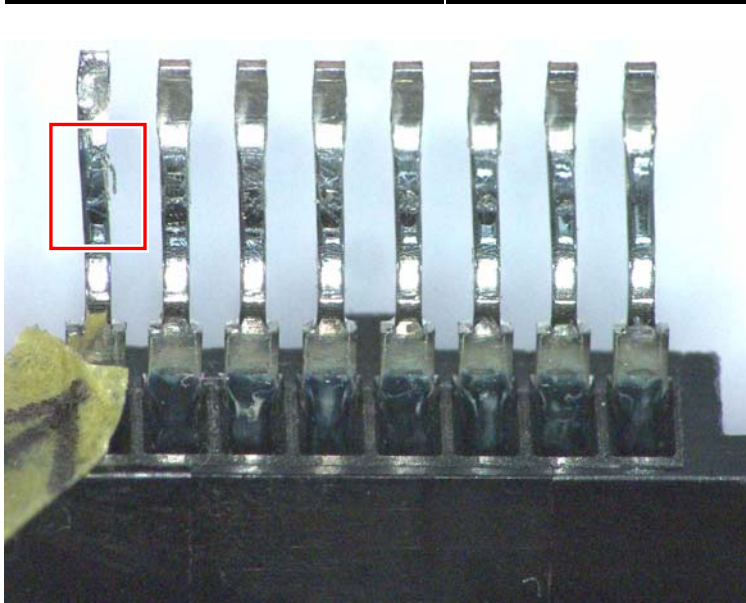
Figure 13



NOT ACCEPTABLE

Burr on Lead

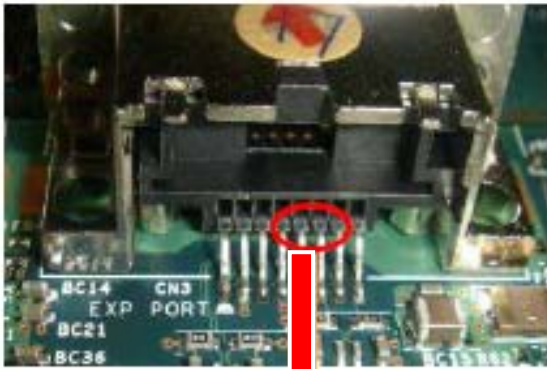
Figure 14



NOT ACCEPTABLE

Burr on Lead

Figure 15



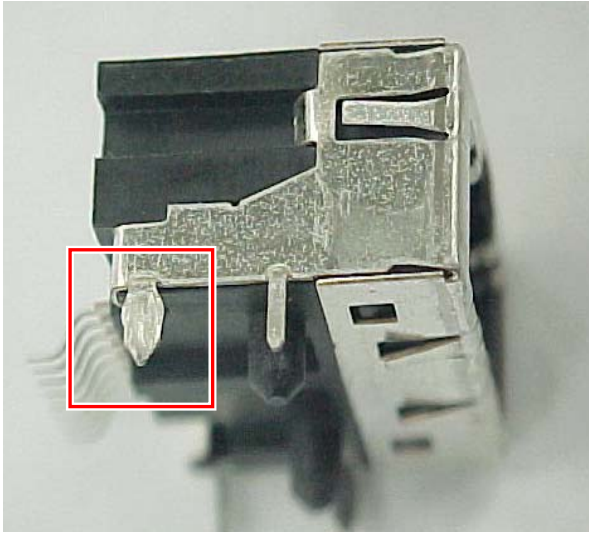
NOT ACCEPTABLE

Small Metal Slivers
Between Solder Tails

Figure 16



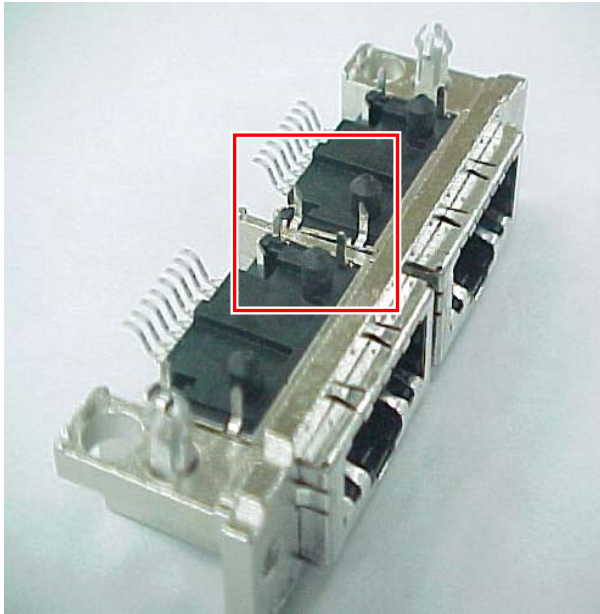
5.4. Shield



NOT ACCEPTABLE

Flattened Leg

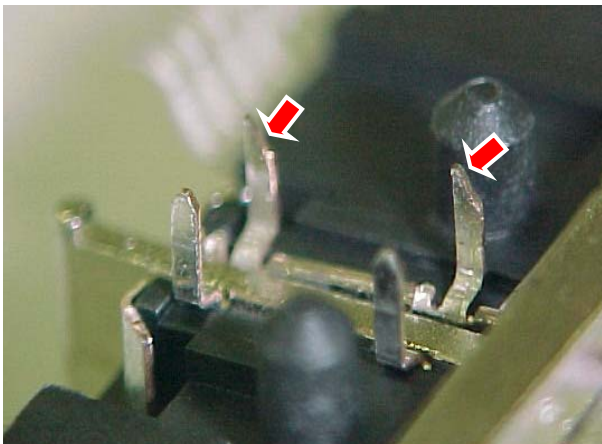
Figure 17

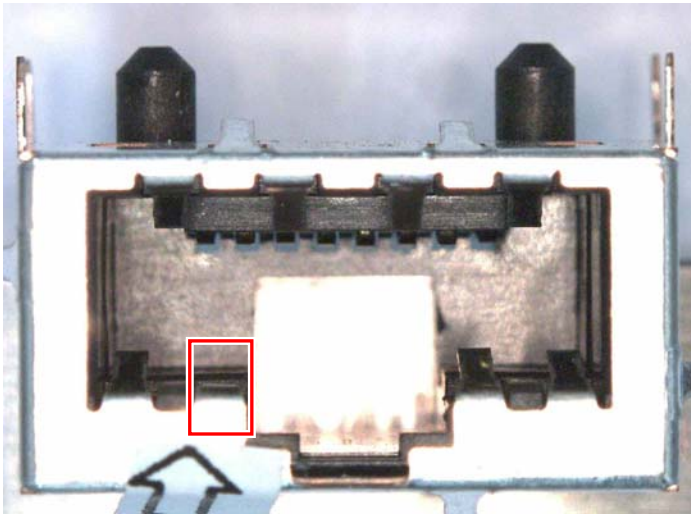


NOT ACCEPTABLE

Cut Leg / Irregular Tine Shape

Figure 18

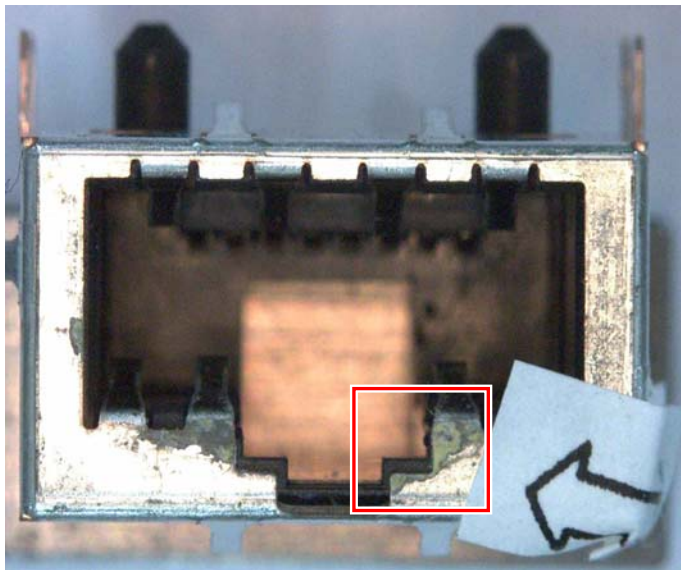




NOT ACCEPTABLE

Deformed Shell

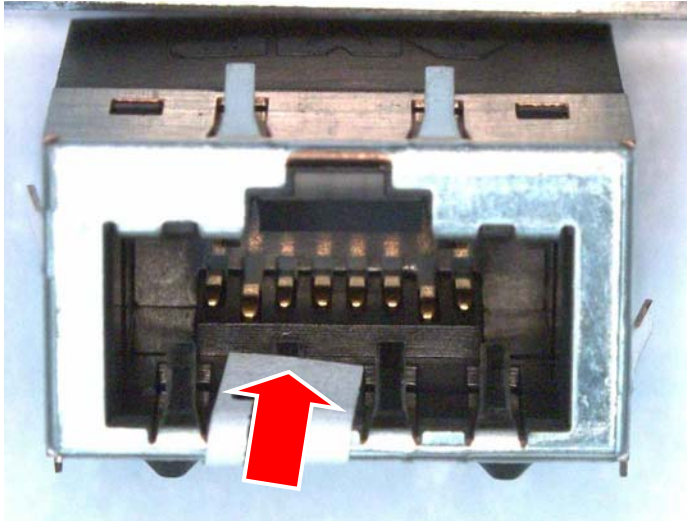
Figure 19



NOT ACCEPTABLE

Corroded Shell

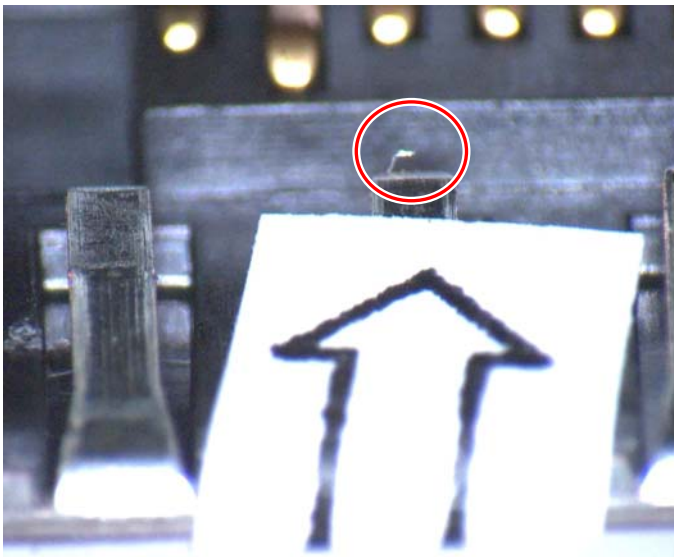
Figure 20



NOT ACCEPTABLE

Metallic Debris on Shell

Figure 21



NOT ACCEPTABLE

Metallic Debris on Shell

Figure 22

5.5. Die cast, tapped, plated bracket



NOT ACCEPTABLE

Deformed Flange

Figure 23

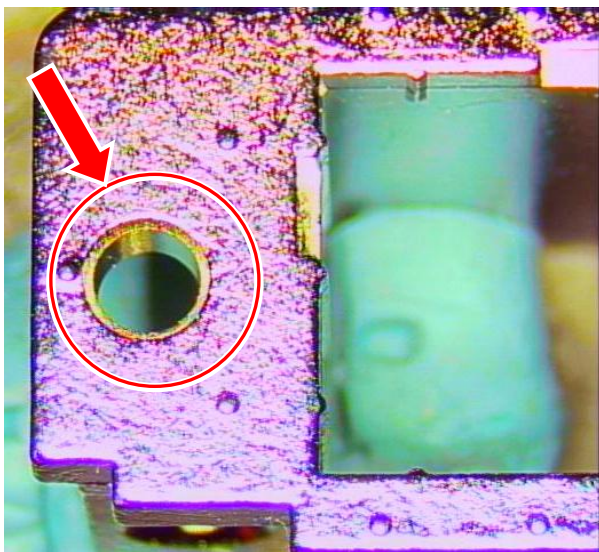


INSPECTION

NOTE

Inspect for Condition before assembly to housing

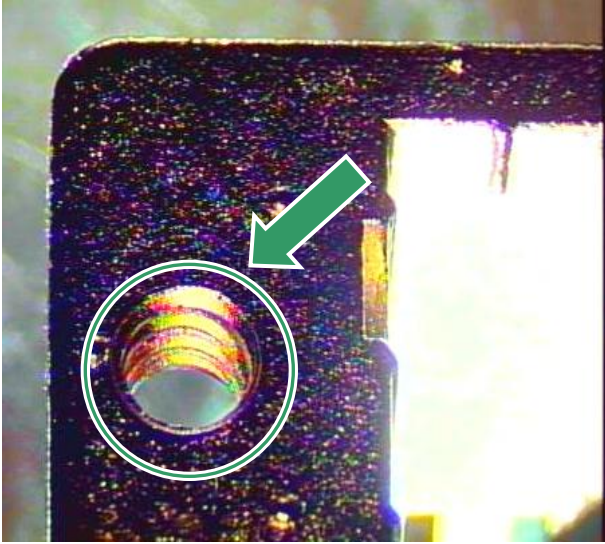
Figure 24



NOT ACCEPTABLE

Hole is not threaded

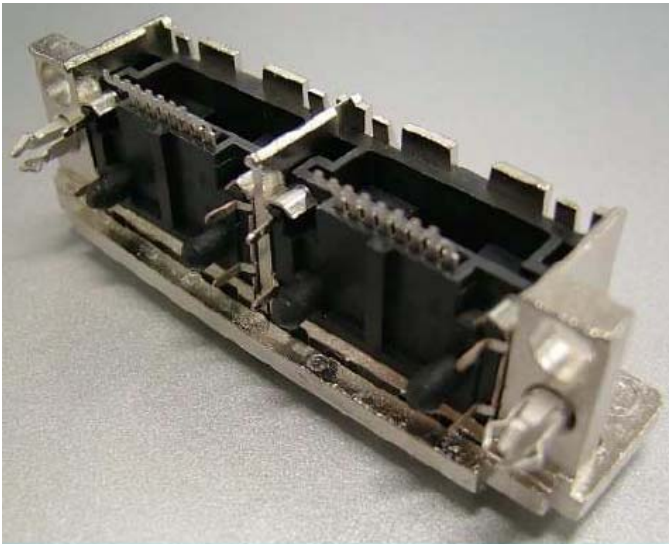
Figure 25



ACCEPTABLE

Hole is threaded

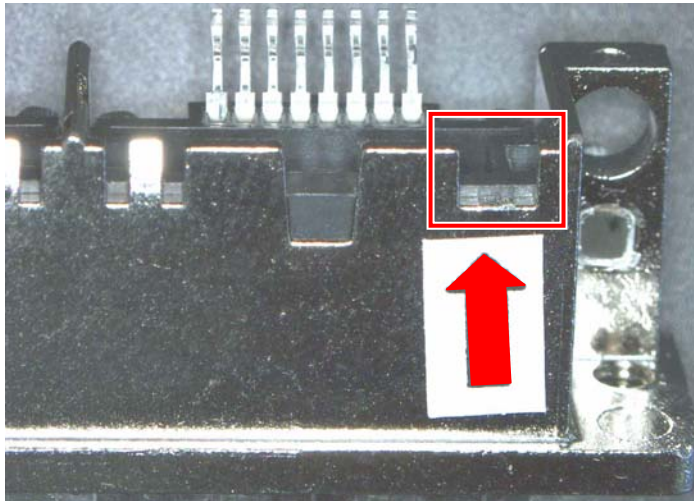
Figure 26



NOT ACCEPTABLE

Non Fill

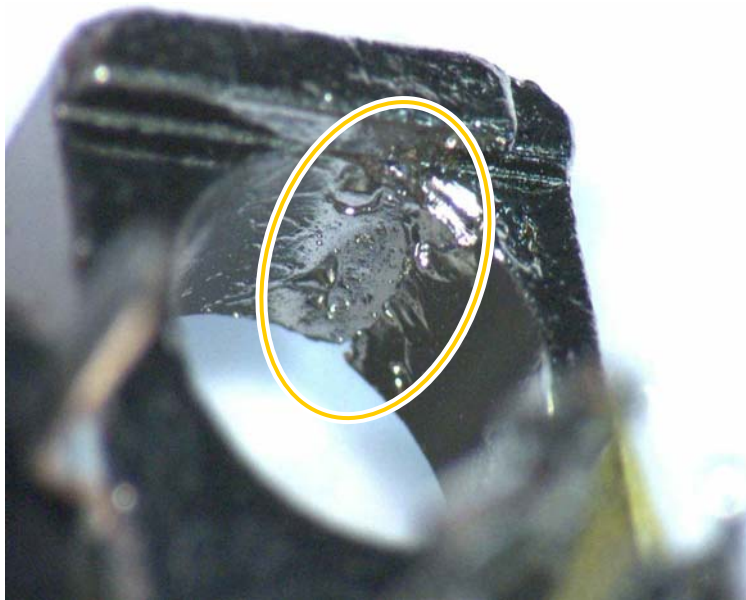
Figure 27



NOT ACCEPTABLE

Bracket Clinch Tab
Physically Broken

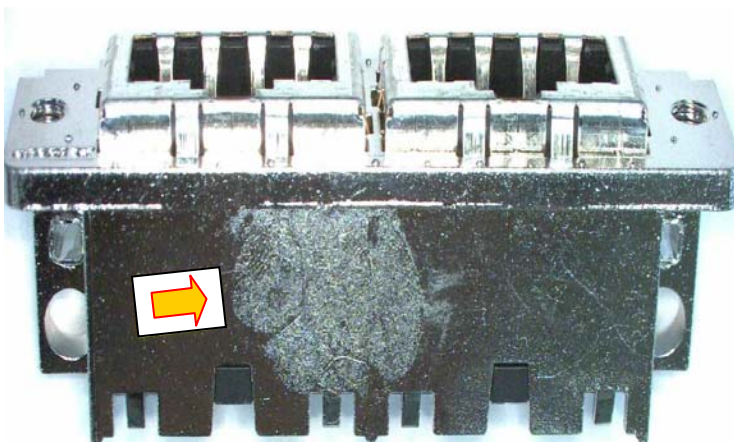
Figure 28



MARGINALLY ACCEPTABLE

Non-Fill at mounting hole inner
diameter that does not functionally
affect the fastening feature.

Figure 29



MARGINALLY ACCEPTABLE

Surface texture variation on surface
that does not functionally affect the
structure of the bracket.

Advise die casting to minimize lubricant

Figure 30



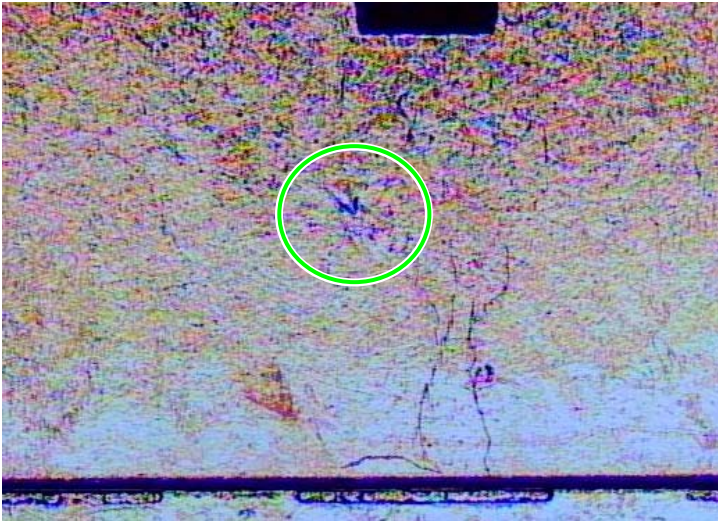
NOT ACCEPTABLE
*Inspect prior to Shield Assembly
and at Final Inspection*

Large Non-Fills that Weaken the
Back of the Bracket in
Rear Circuit Board Stand-Off

NOTE

*Minor pits and
imperfections in areas that
do not affect Form, Fit, and
Function are acceptable.*

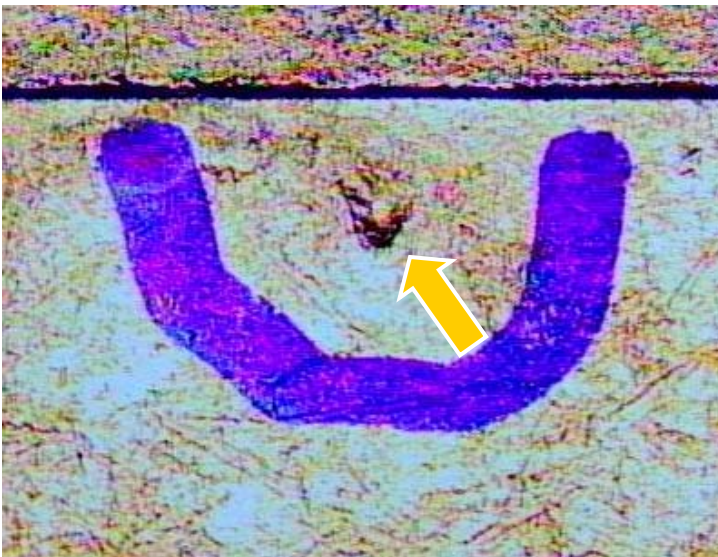
Figure 31



**ACCEPTABLE
Blisters**

Small Hard Blister

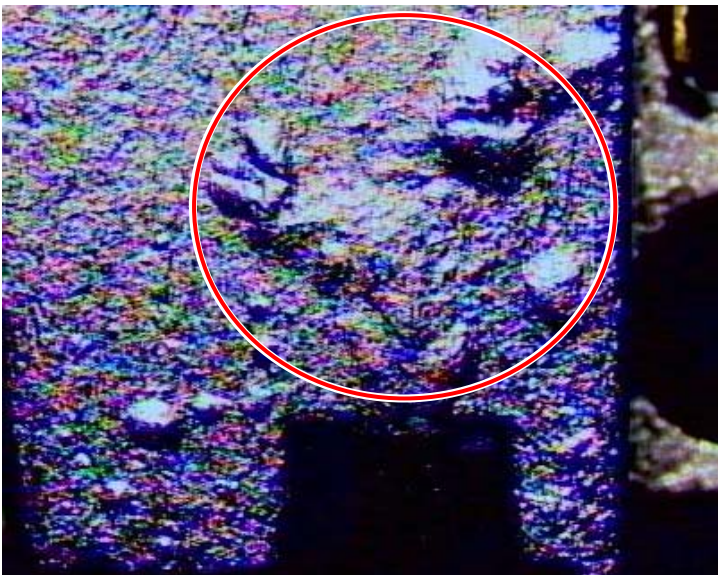
Figure 32



**MARGINALLY ACCEPTABLE
Blisters**

Larger Blister, May be Soft

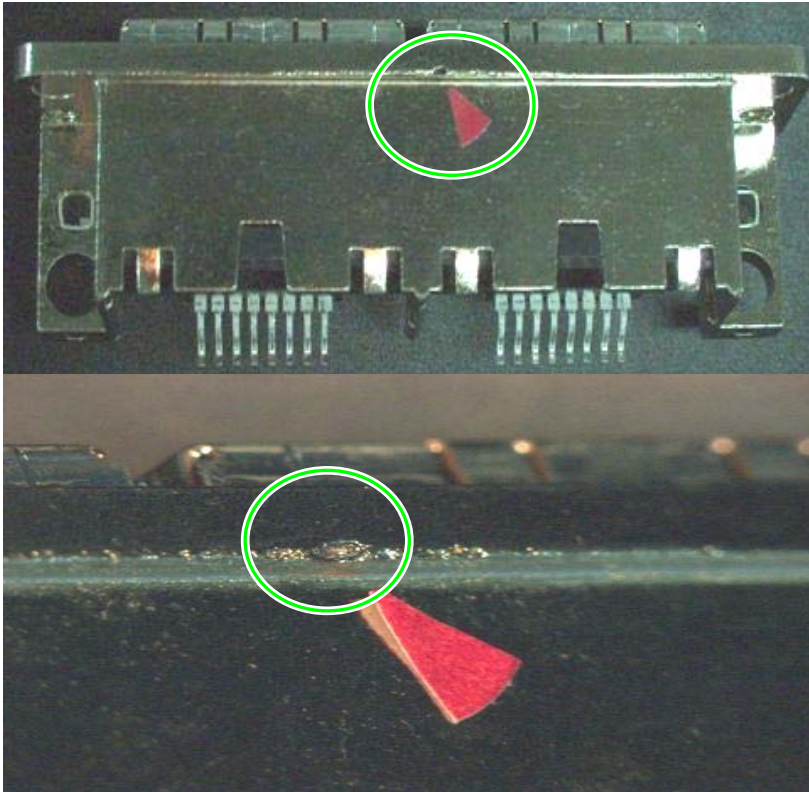
Figure 33



**NOT ACCEPTABLE
Blisters**

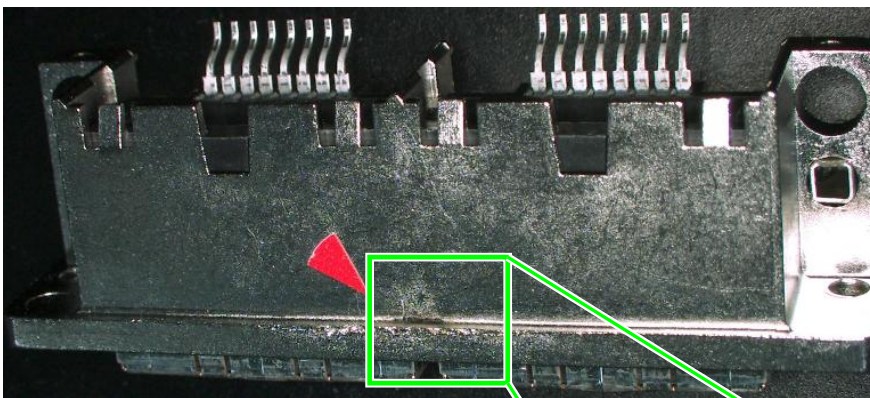
Large Multiple Blisters

Figure 34



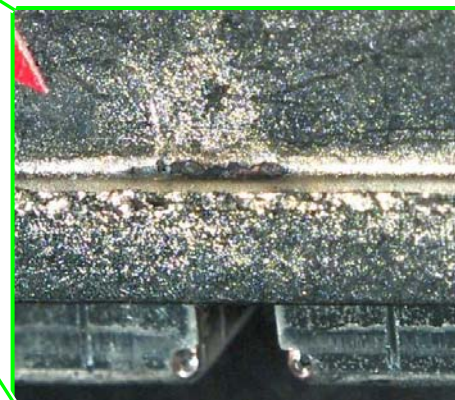
**ACCEPTABLE
Non-Fill**

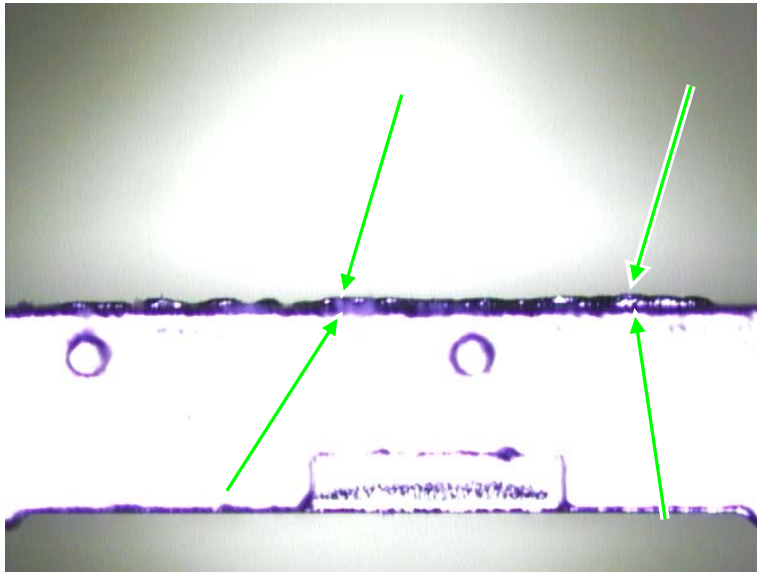
Figure 35



**ACCEPTABLE
Non-Fill**

Figure 36

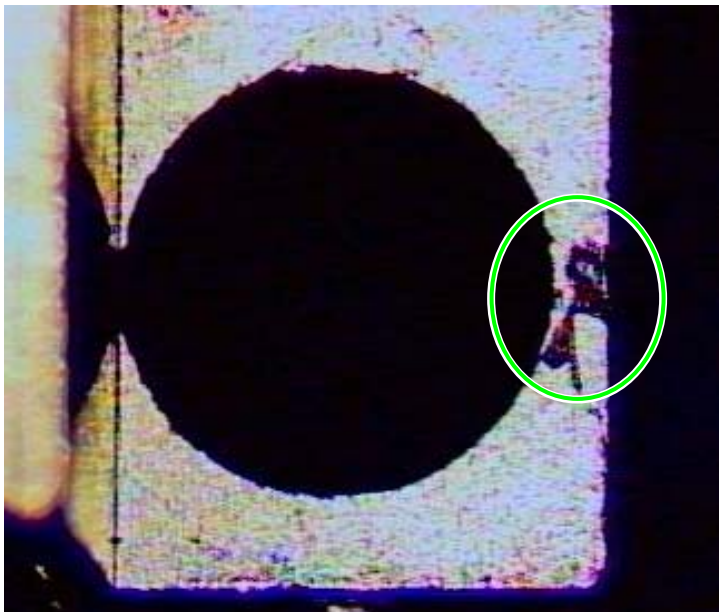




ACCEPTABLE

Gate Vestige
Material or Lump along Top Flange
Surface .087 / .106 high by .334 thick

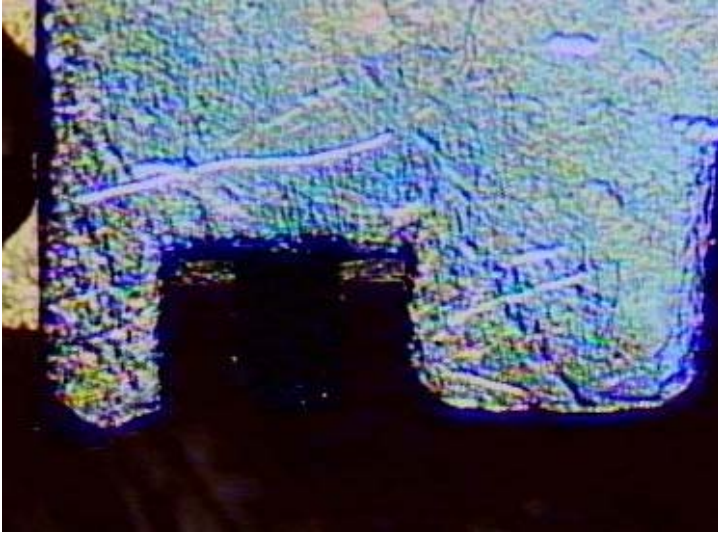
Figure 37



**ACCEPTABLE
Non-Fill**

Small Voids with No
Affect on Product Function

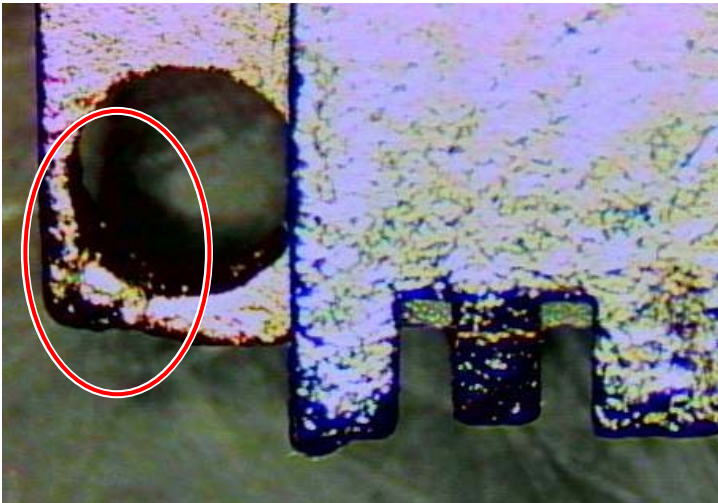
Figure 38



**MARGINALLY ACCEPTABLE
Non-Fill**

Corners Without Definition

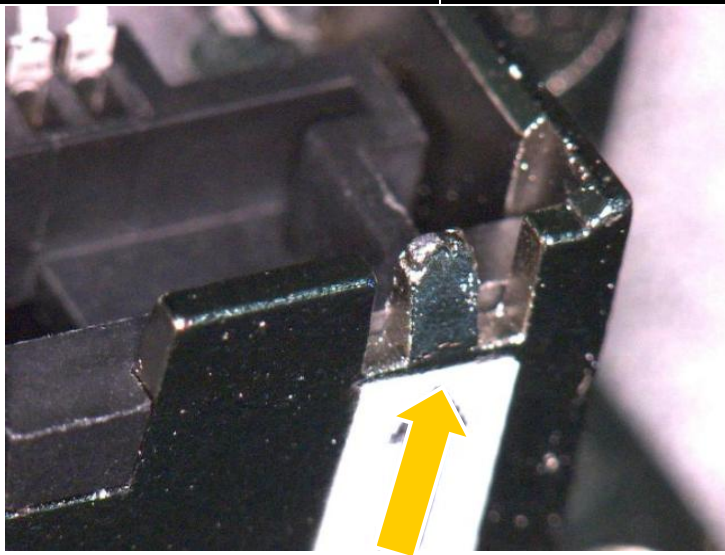
Figure 39



**NOT ACCEPTABLE
Non-Fill**

Significant Loss of Definition

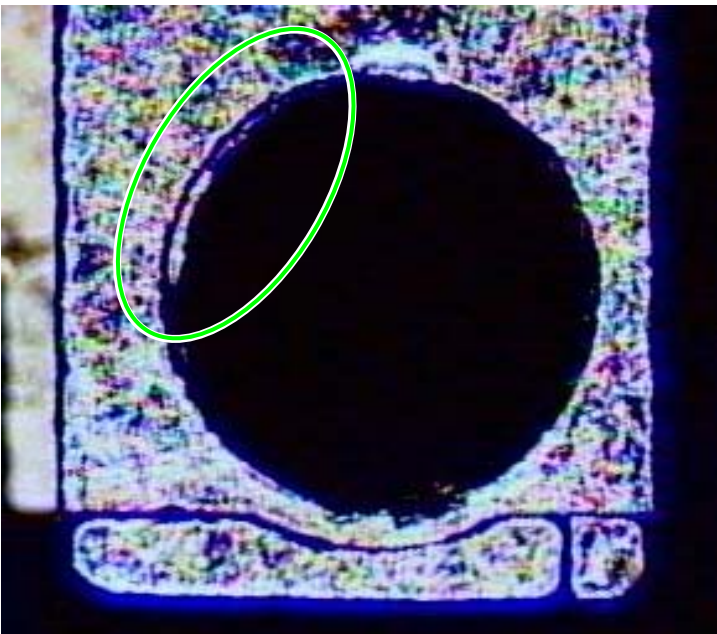
Figure 40



MARGINALLY ACCEPTABLE

Non-Fill of Tab Feature

Figure 41



**ACCEPTABLE
Flash**

Flash Within Limits of
Engineering Specification 115-54

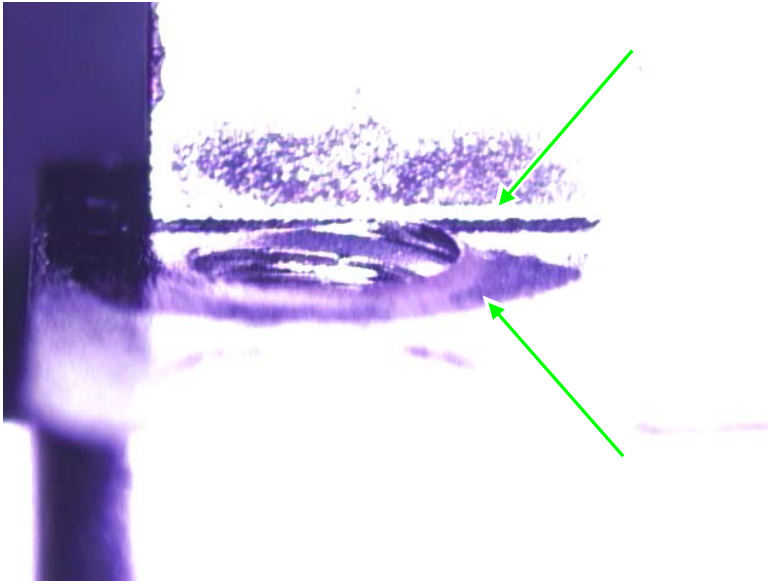
Figure 42



**NOT ACCEPTABLE
Flash**

Flash Exceeds Limits of
Engineering Specification 115-54

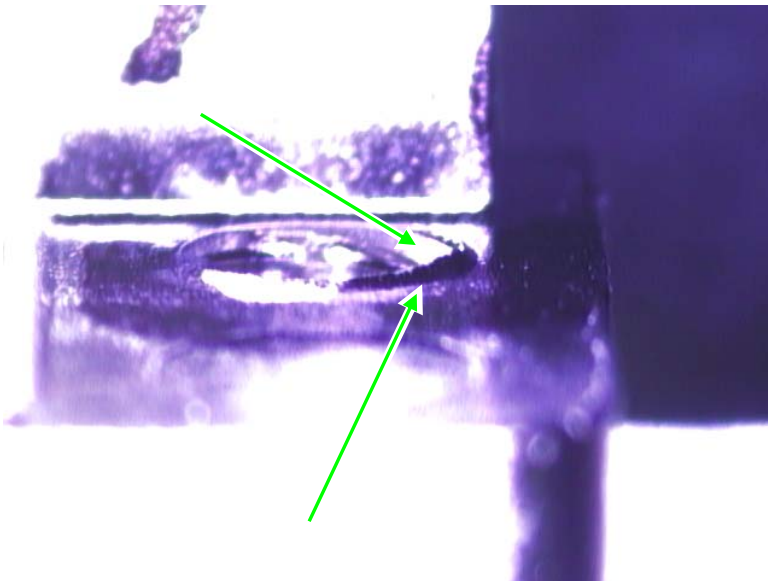
Figure 43



ACCEPTABLE

Material Around Threaded Holes

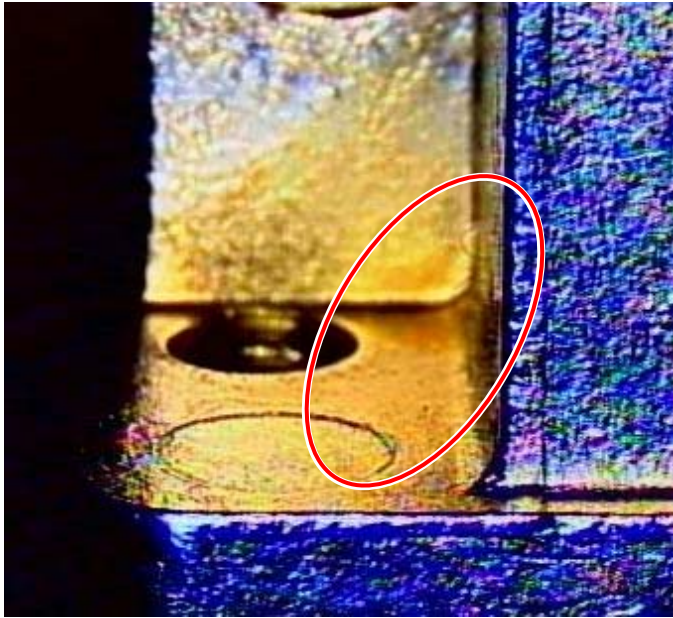
Figure 44



ACCEPTABLE

Material Around Threaded Holes

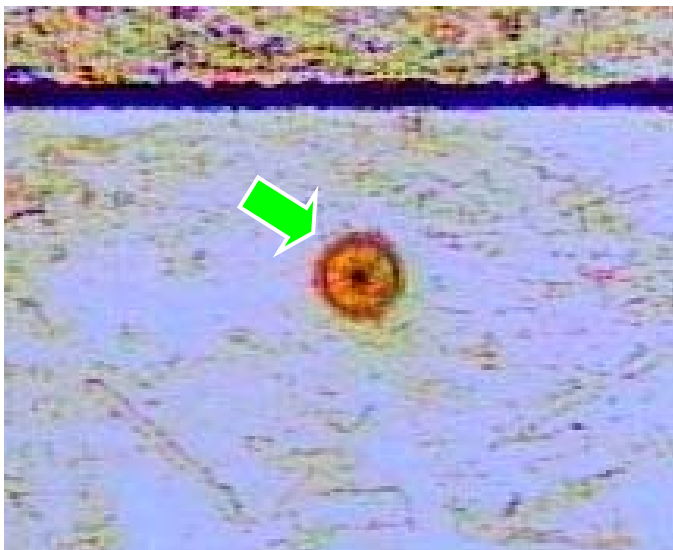
Figure 45



**NOT ACCEPTABLE
Surface Stains**

Surface Stains

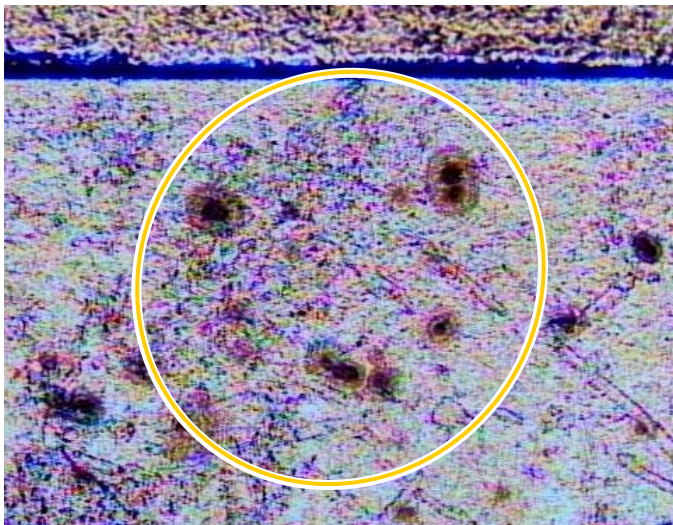
Figure 46



**ACCEPTABLE
Surface Stains**

Small Surface Spots
Not on Front Face

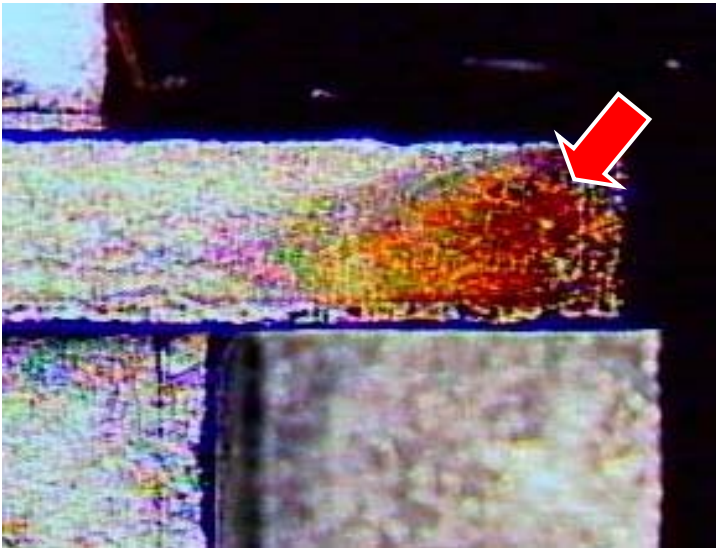
Figure 47



**MARGINALLY ACCEPTABLE
Surface Stains**

Multiple Small Surface Spots
Not on Front Face

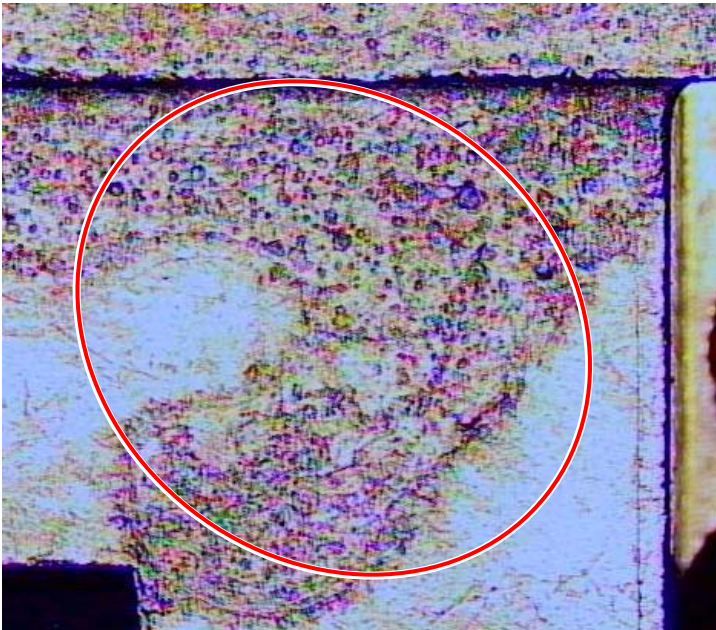
Figure 48



**NOT ACCEPTABLE
Surface Stains**

Large Surface
Discoloration / Burn Mark

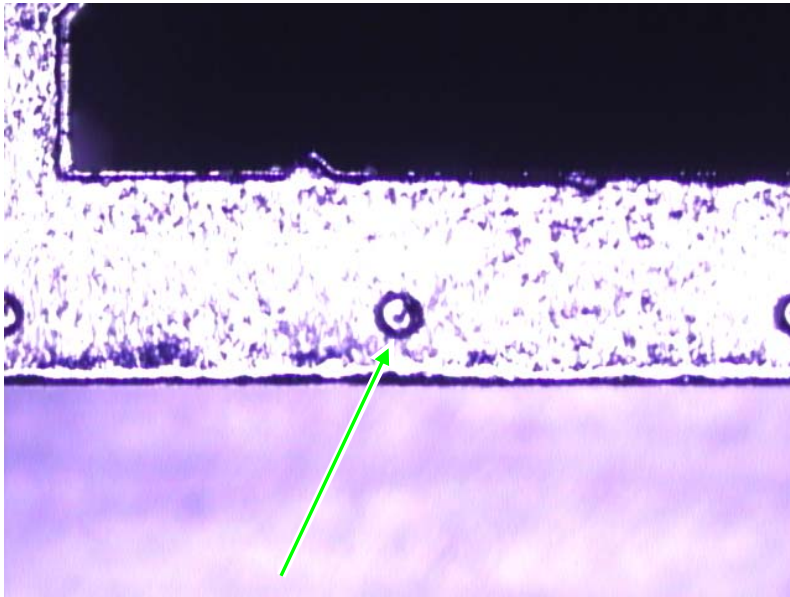
Figure 49



**NOT ACCEPTABLE
Surface Stains**

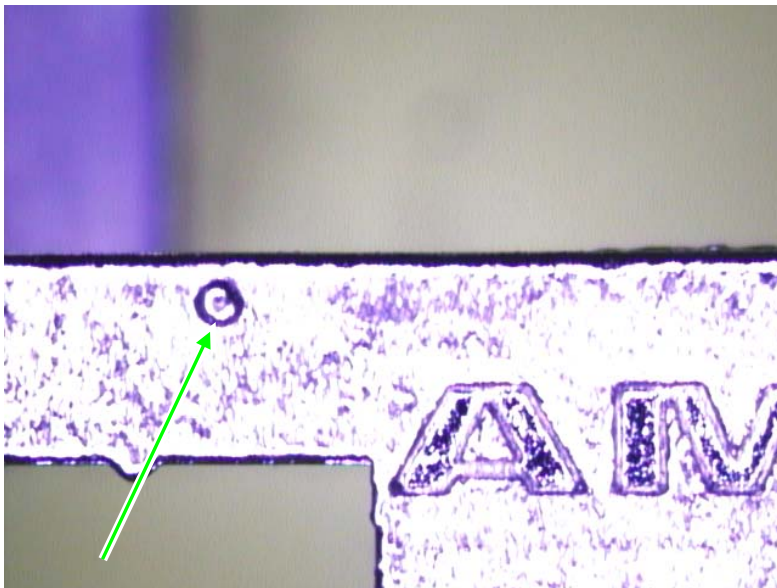
Large Surface
Discoloration

Figure 50



ACCEPTABLE

Panel Ground Concentrating
Diameters
Figure 51

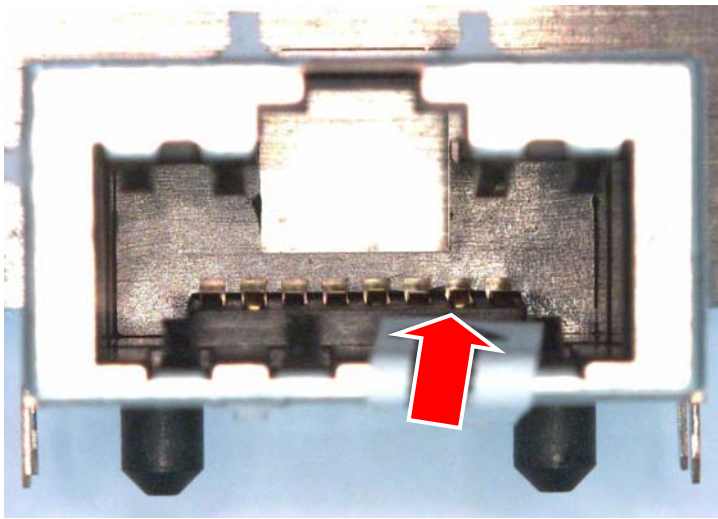


ACCEPTABLE

Panel Ground Concentrating
Diameters
Figure 52

6. ASSEMBLY CRITERIA

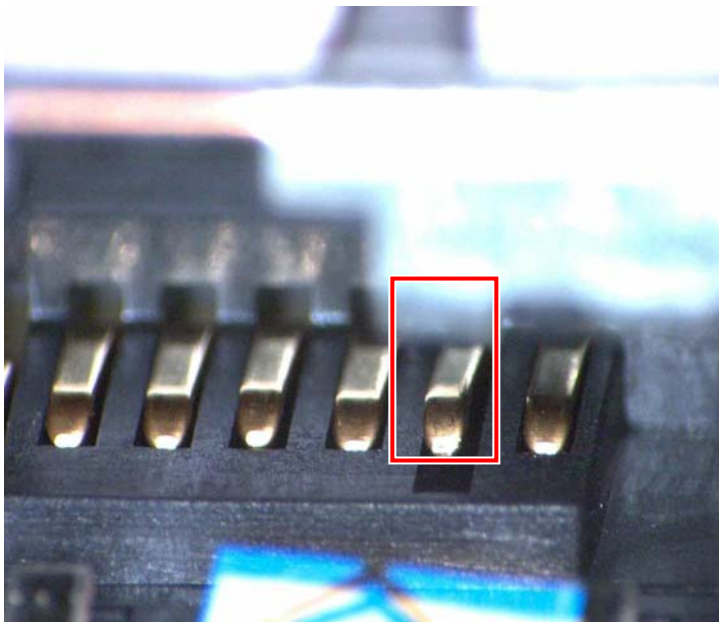
6.1. Contact Insertion

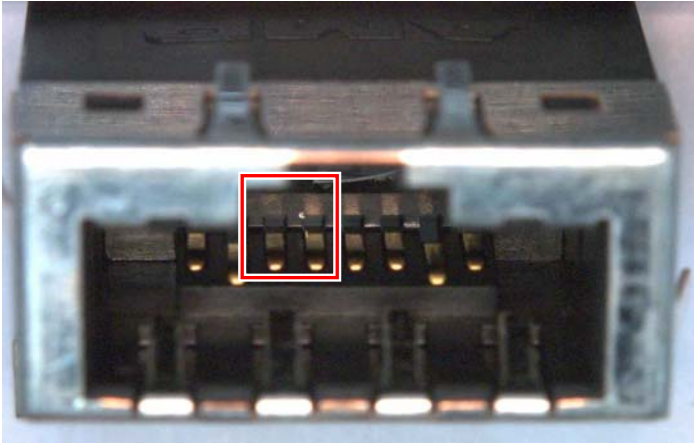


NOT ACCEPTABLE

Insufficient Insertion of Contact

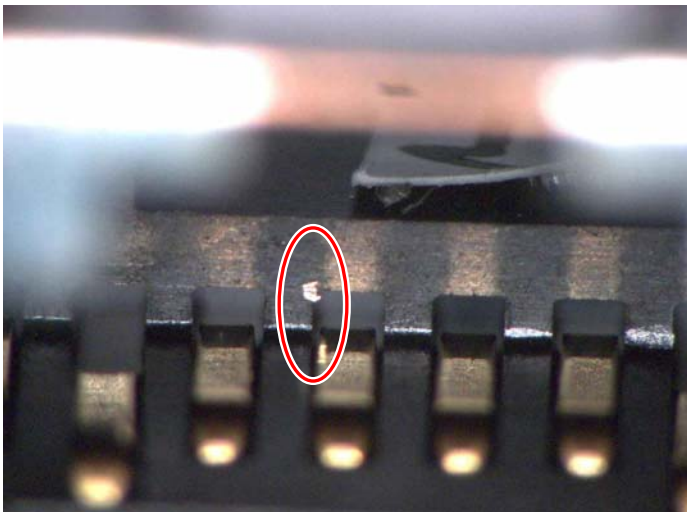
Figure 53





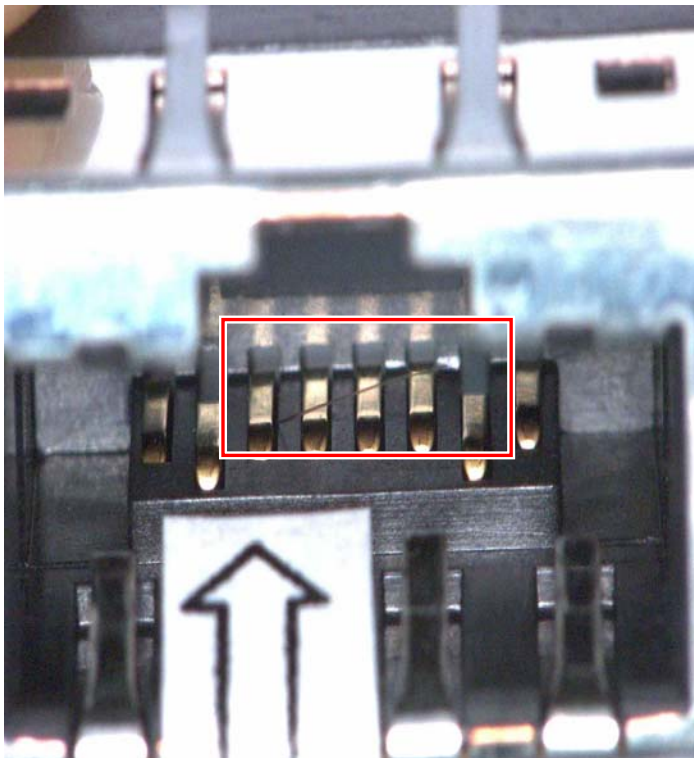
NOT ACCEPTABLE
Metallic Debris on Housing

Figure 54



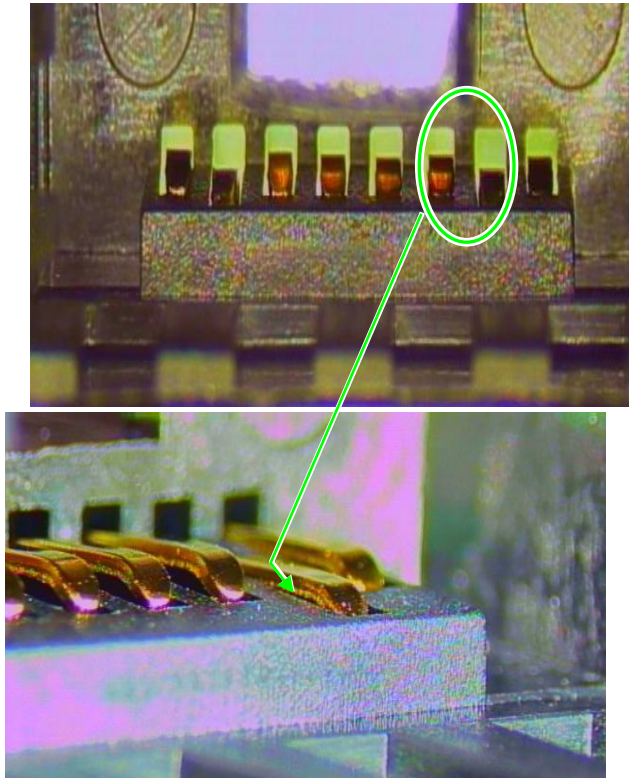
NOT ACCEPTABLE
Metallic Debris on Housing

Figure 55



NOT ACCEPTABLE
Foreign Substance Adhered

Figure 56



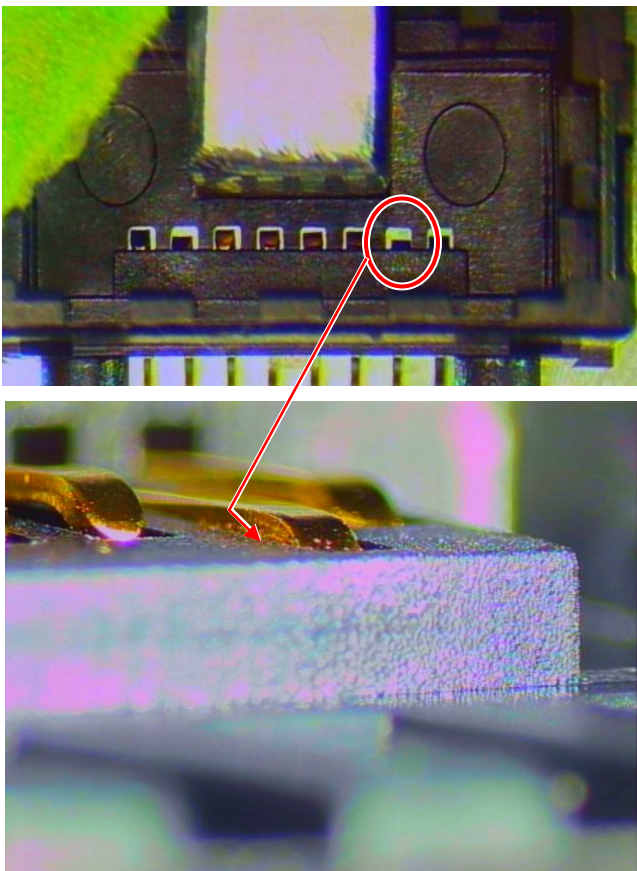
ACCEPTABLE

Sub-Assembly Internal Contact

NOTE

A Gap must be visible between floor of housing and contact

Figure 57



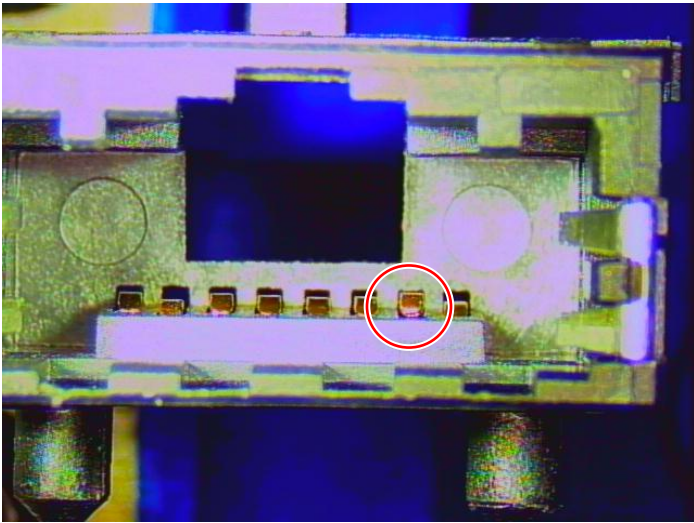
NOT ACCEPTABLE

Sub-Assembly Internal Contact

NOTE

A Gap must be visible between floor of housing and contact

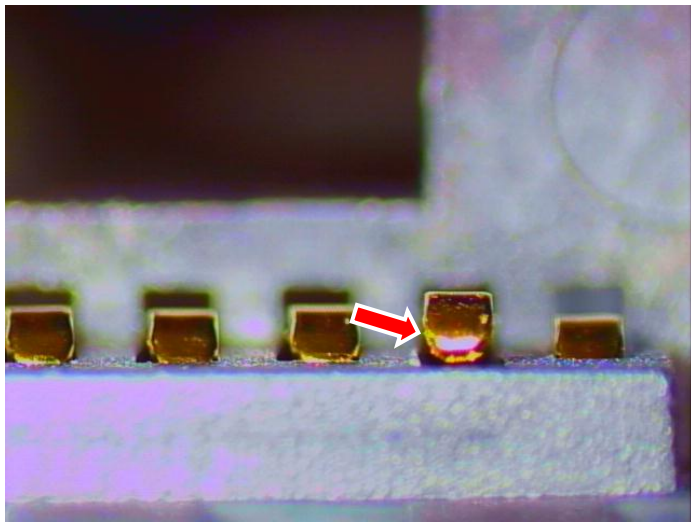
Figure 58



NOT ACCEPTABLE

Sub-Assembly Internal Contact
Contact Lifted to High

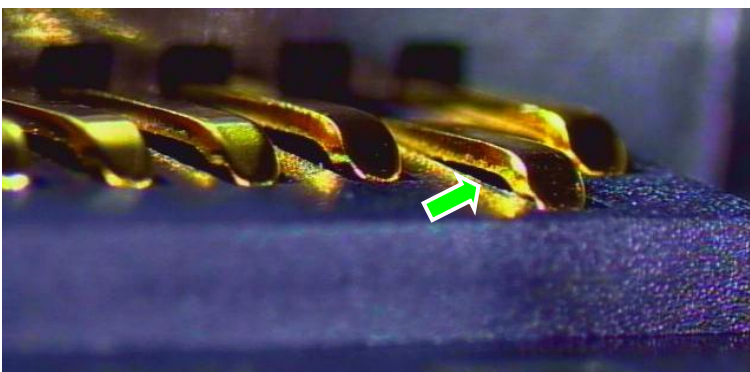
Figure 59

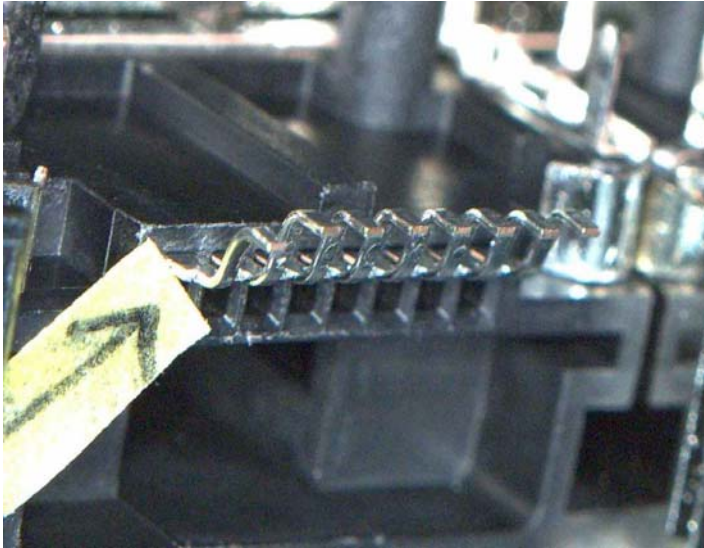


ACCEPTABLE

Sub-Assembly Internal Contact
Ideal Amount of Gap

Figure 60

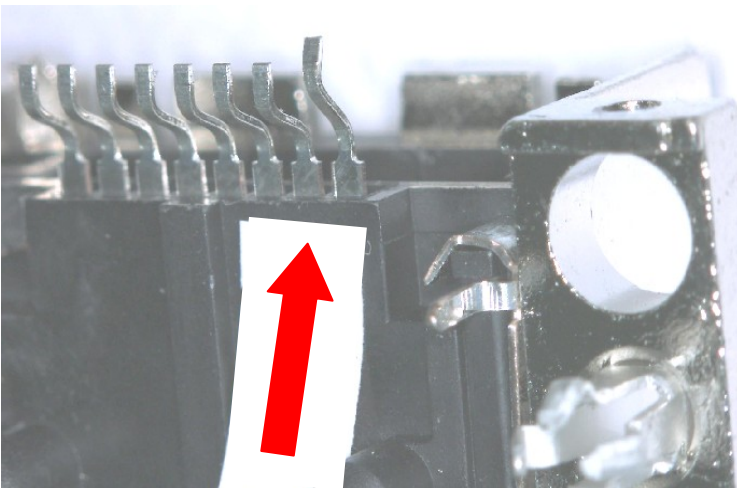




NOT ACCEPTABLE

Bent Contact Lead

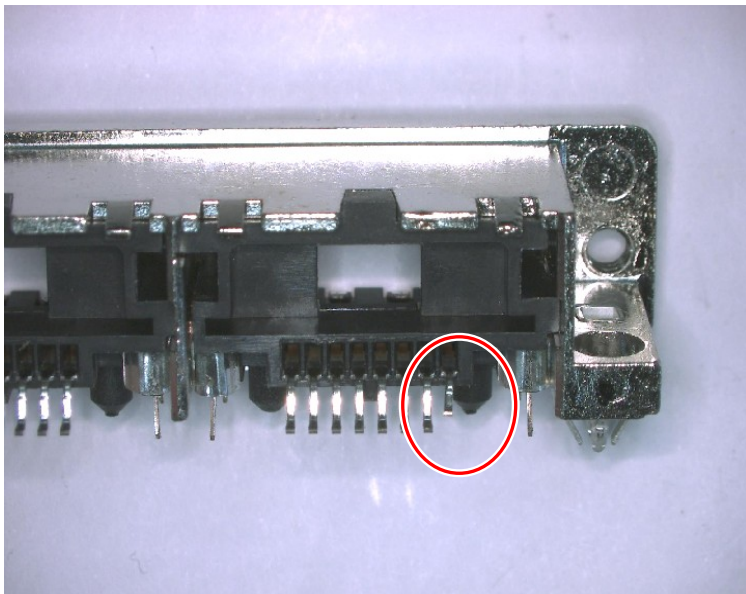
Figure 61



NOT ACCEPTABLE

Bent Contact Lead

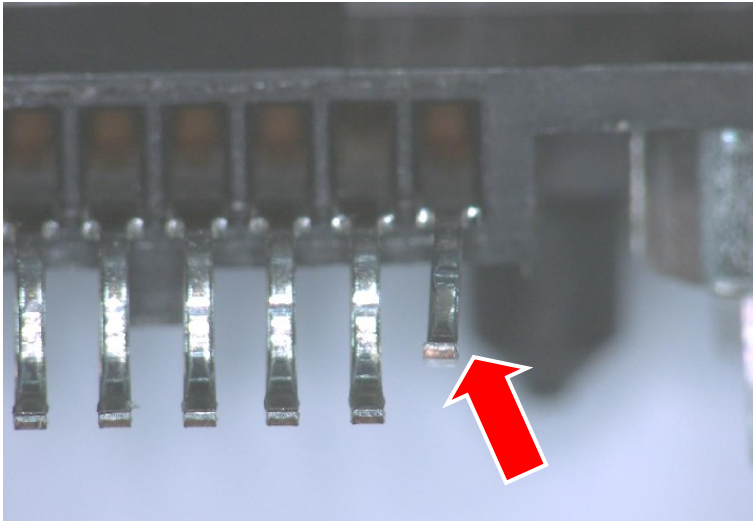
Figure 62



NOT ACCEPTABLE

Bent Contact Lead

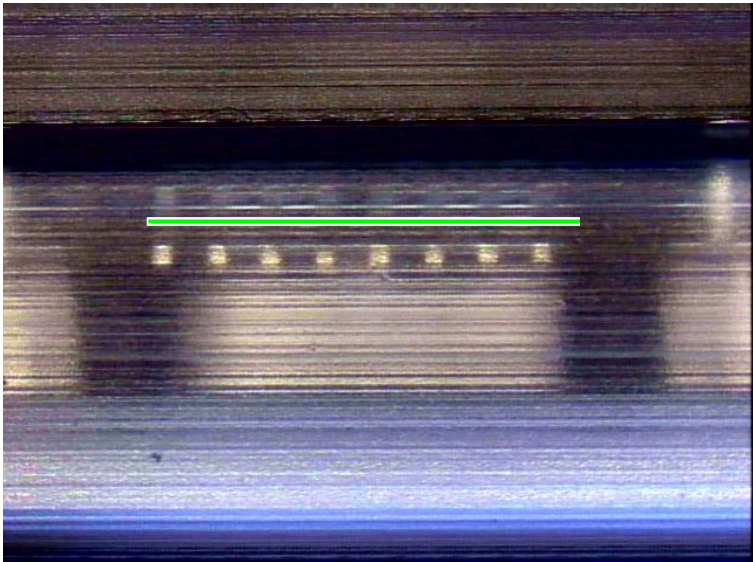
Figure 63



NOT ACCEPTABLE

Bent Contact Lead

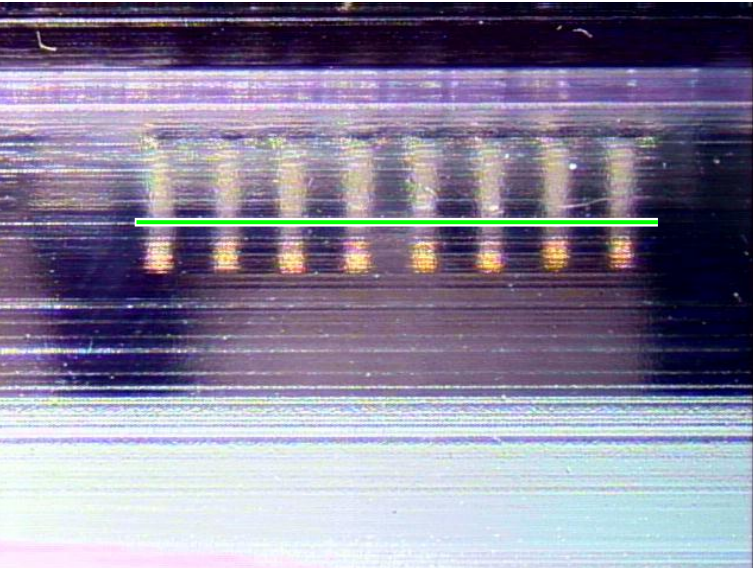
Figure 64

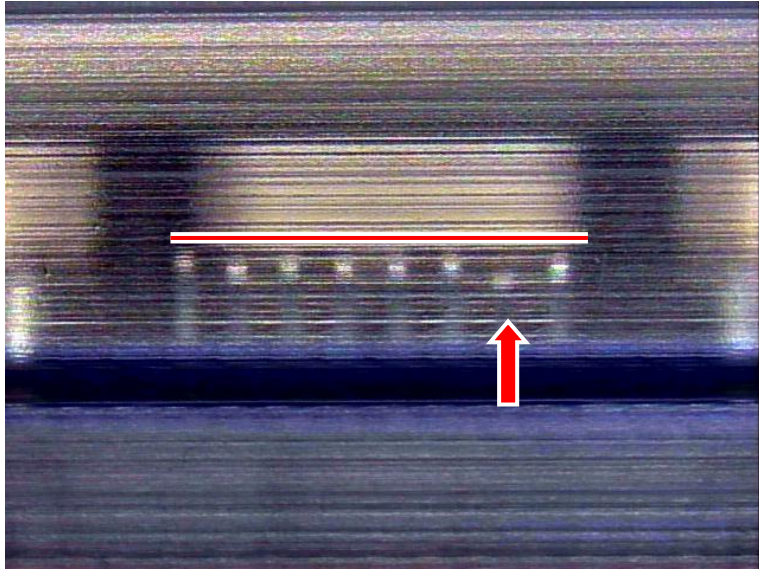


ACCEPTABLE

Coplanarity of Assemblies
Packaged in Tubes

Figure 65

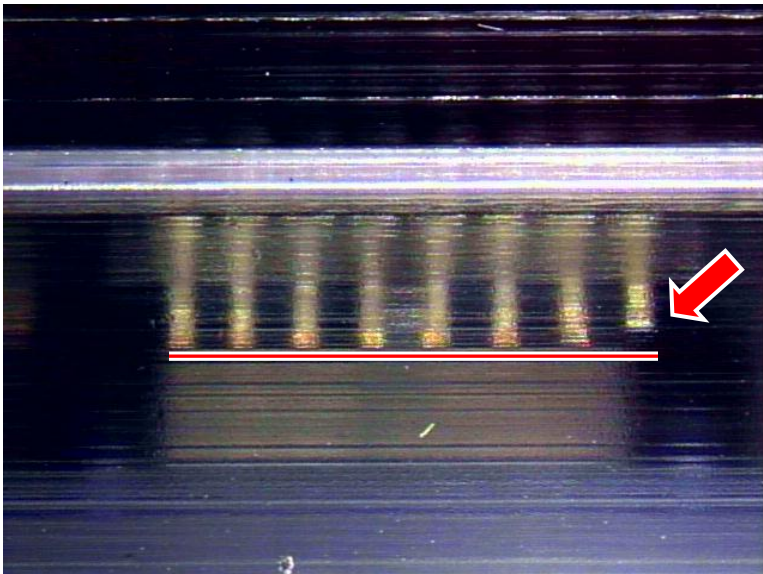




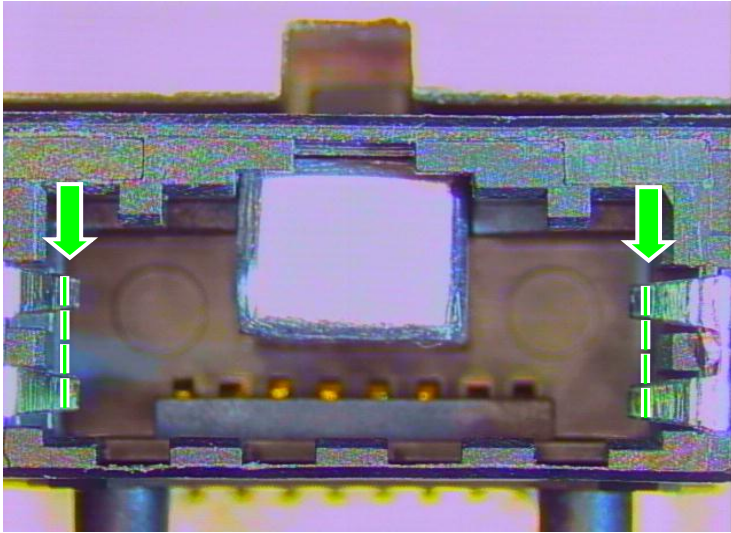
NOT ACCEPTABLE

Coplanarity of Assemblies
Packaged in Tubes

Figure 66



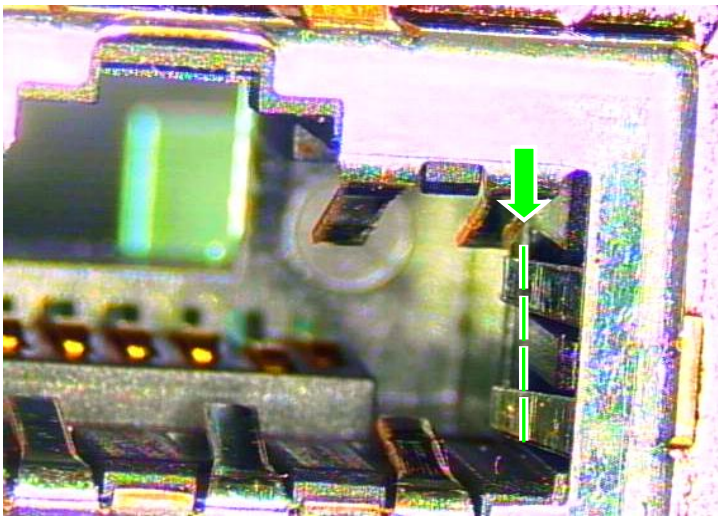
6.2. Assemble Ground Fingers

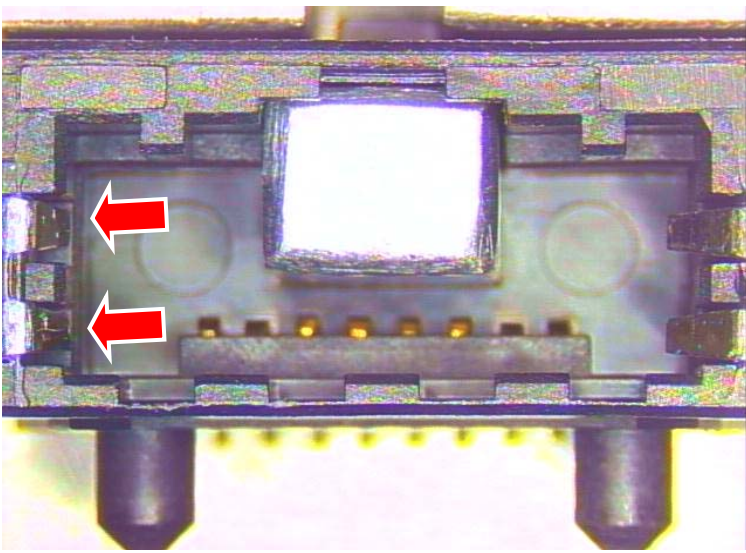


ACCEPTABLE

Fingers Extend Past Housing Wall

Figure 67

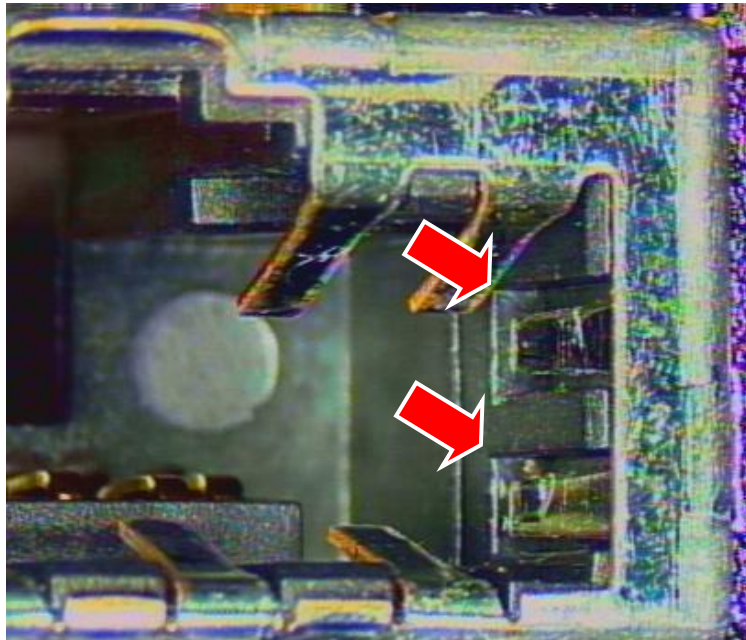




NOT ACCEPTABLE

Fingers are Bent and Do Not Extend Beyond Housing Wall

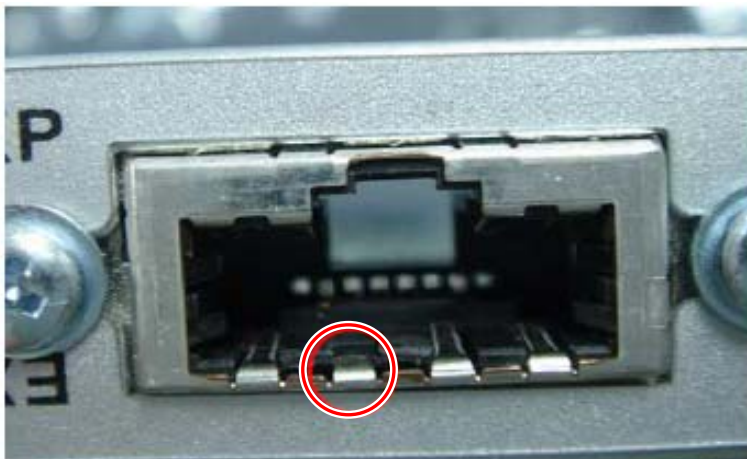
Figure 68



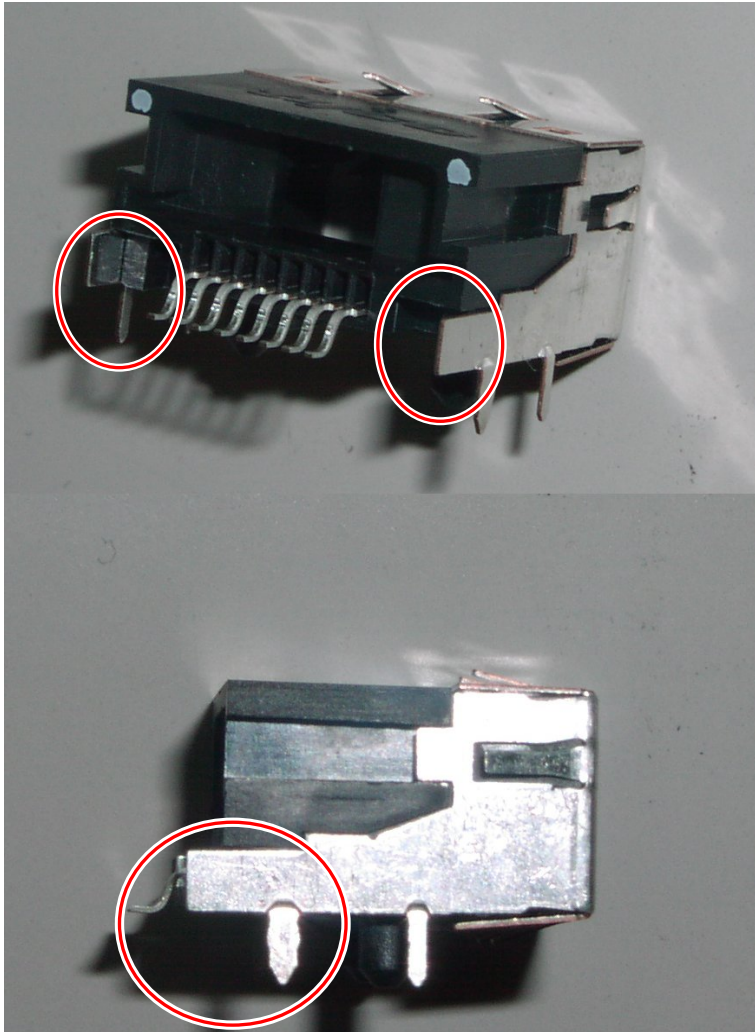
NOT ACCEPTABLE

Shield Finger Beneath Housing

Figure 69



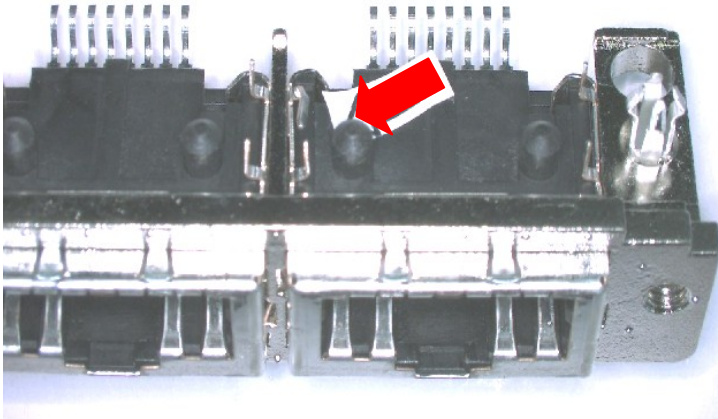
6.3. Install and Clinch Shield



NOT ACCEPTABLE

Missed Shield Clinch

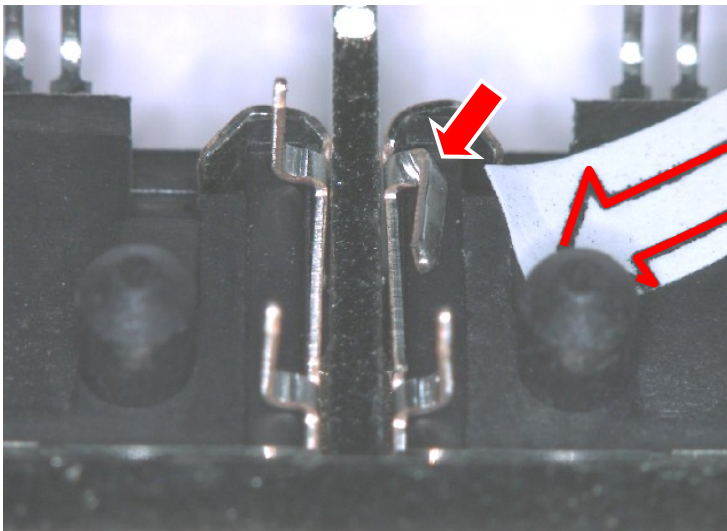
Figure 70



NOT ACCEPTABLE

Bent Shield Lead

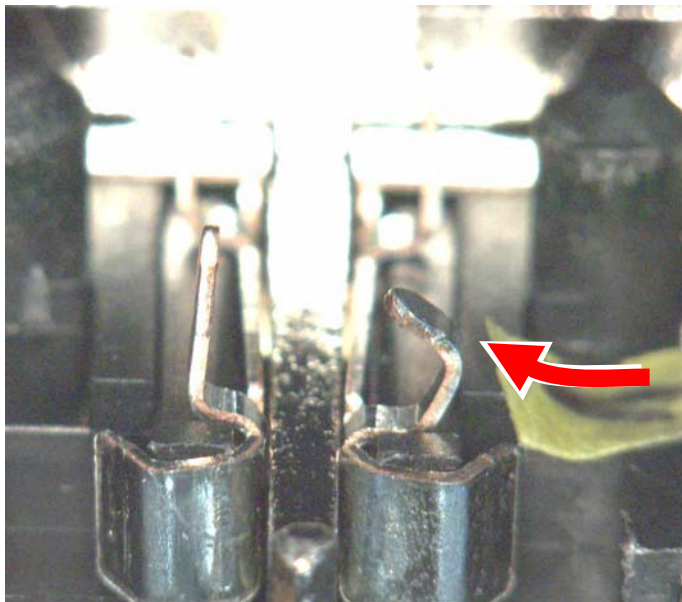
Figure 71



NOT ACCEPTABLE

Bent Shield Lead

Figure 72

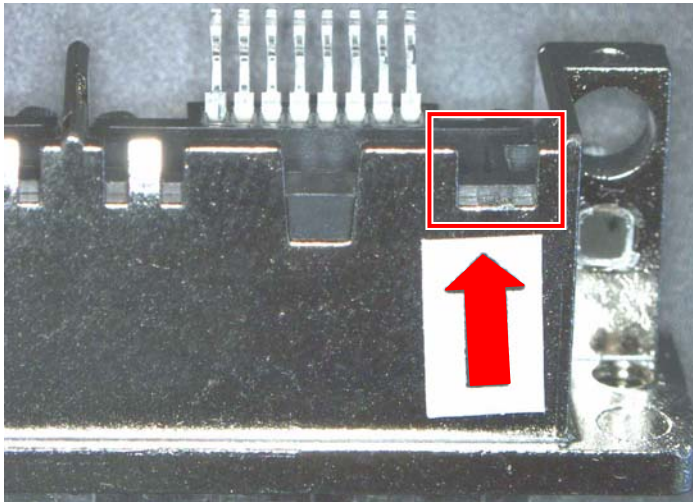


NOT ACCEPTABLE

Bent Inner Shield Tine

Figure 73

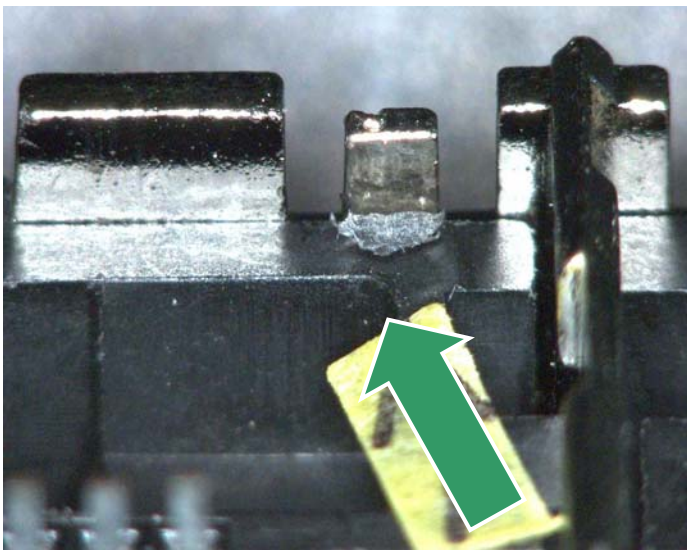
6.4. Install and Clinch Bracket



NOT ACCEPTABLE

Bracket Clinch Tab
Physically Broken

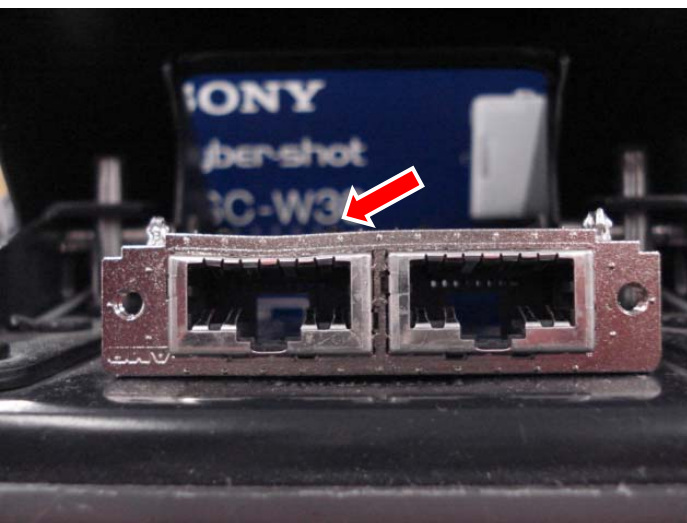
Figure 74



ACCEPTABLE

Housing material displacement
under bracket retention tab.
Assembly formed (not a functional
area of the connector).

Figure 75

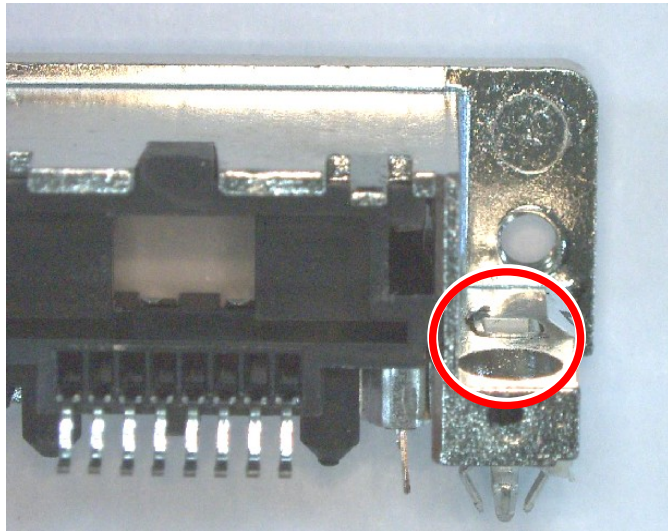


NOT ACCEPTABLE

Bracket Flange is Deformed

Figure 76

6.5. Insert Board Lock



NOT ACCEPTABLE

Burr Pushed from
Die Cast Bracket

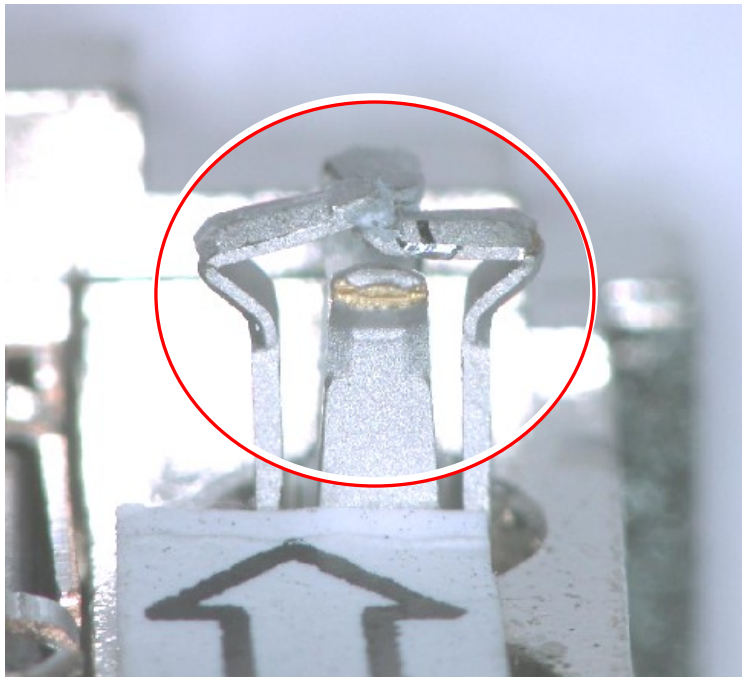
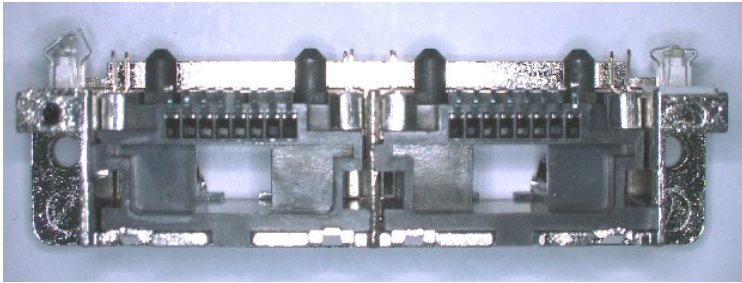
Figure 77



NOT ACCEPTABLE

Burr Pushed from
Die Cast Bracket

Figure 78



NOT ACCEPTABLE

Crushed (Insert) Board Lock

Figure 79