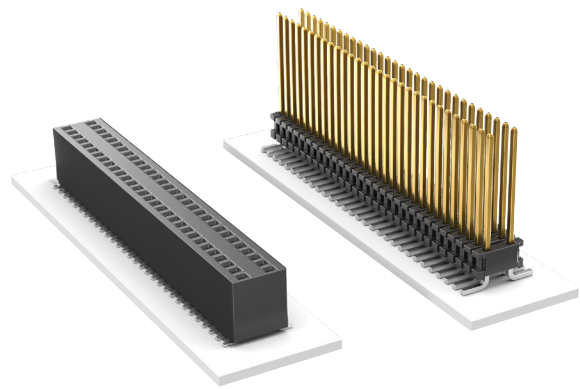


# SMT MICRO HEADER & SOCKET

(1.27 mm) .050" PITCH • FTR/RSM SERIES



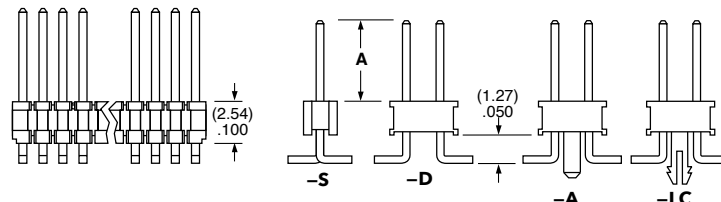
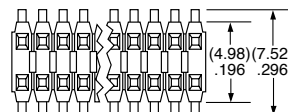
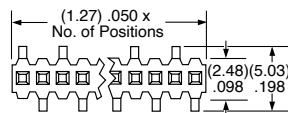
**FTR**  
Mates:  
RSM, SMS, SLM

**RSM**  
Mates:  
FTR, HTMS, HDWM,  
DWM, TML, ZML, TMS

## SPECIFICATIONS

**Insulator Material:**  
Black Liquid Crystal Polymer  
**Contact Material:**  
RSM: Phosphor Bronze  
**Terminal Material:**  
FTR: Phosphor Bronze  
**Plating:**  
Au or Sn over  
50  $\mu$ " (1.27  $\mu$ m) Ni  
**Operating Temp Range:**  
FTR: -55 °C to +105 °C with Tin;  
FTR: -55 °C to +125 °C with Gold  
RSM: -55 °C to +125 °C  
**Current Rating (FTR/RSM):**  
3.8 A per pin  
(2 pins powered)  
**Voltage Rating:**  
290 VAC/410 VDC  
**Lead Size Accepted:**  
RSM: (0.46 mm) .018" SQ  
**Insertion Depth:**  
RSM: Top Entry =  
(2.64 mm) .104" to (5.84 mm) .230"  
with (0.38 mm) .015" wipe, or  
pass-through.  
RSM: Bottom Entry =  
(5.49 mm) .216" minimum  
(Add board thickness for  
correct post OAL)

| FTR                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1            | NO. PINS PER ROW | LEAD STYLE                    | PLATING OPTION                                                                                                                                                                               | ROW OPTION                                             | OPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |   |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |              |     |              |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------------------|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---|-----|-------------|-----|-------------|-----|-------------|-----|-------------|-----|-------------|-----|-------------|-----|-------------|-----|-------------|-----|--------------|-----|--------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |              | 02 thru 40       | Specify LEAD STYLE from chart | <b>-F</b><br>= Gold flash on contact, Matte Tin on tail<br><b>-L</b><br>= 10 μ" (0.25 μm) Gold on post, Matte Tin on tail<br><b>-G</b><br>= 10 μ" (0.25 μm) Gold on post, Gold flash on tail | <b>-S</b><br>= Single Row<br><b>-D</b><br>= Double Row | <b>-XX"</b><br>= Polarized<br><b>-A</b><br>= Alignment Pin (5 positions min. for -D) (Metal or plastic at Samtec discretion) (Not available with -LC)<br><b>-LC</b><br>= Locking Clip (6 positions min. for -D) (Not available with -A) (Manual placement required)<br><b>-P</b><br>= Plastic Pick & Place Pad (5 positions min. for -D) (8 positions min. for -S)<br><b>-TR</b><br>= Tape & Reel (4 positions min. for -S)<br><b>-FR</b><br>= Full Reel Tape & Reel (must order max. quantity per reel; contact Samtec for quantity breaks) (4 positions min. for -S) |            |   |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |              |     |              |
| <table><tr><th>LEAD STYLE</th><th>A</th></tr><tr><td>-01</td><td>(5.84) .230</td></tr><tr><td>-02</td><td>(2.54) .100</td></tr><tr><td>-03</td><td>(3.18) .125</td></tr><tr><td>-51</td><td>(4.83) .190</td></tr><tr><td>-52</td><td>(5.21) .205</td></tr><tr><td>-53</td><td>(7.24) .285</td></tr><tr><td>-54</td><td>(8.51) .335</td></tr><tr><td>-55</td><td>(9.91) .390</td></tr><tr><td>-56</td><td>(10.29) .405</td></tr><tr><td>-57</td><td>(10.92) .430</td></tr></table> |              |                  |                               |                                                                                                                                                                                              |                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | LEAD STYLE | A | -01 | (5.84) .230 | -02 | (2.54) .100 | -03 | (3.18) .125 | -51 | (4.83) .190 | -52 | (5.21) .205 | -53 | (7.24) .285 | -54 | (8.51) .335 | -55 | (9.91) .390 | -56 | (10.29) .405 | -57 | (10.92) .430 |
| LEAD STYLE                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | A            |                  |                               |                                                                                                                                                                                              |                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |   |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |              |     |              |
| -01                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | (5.84) .230  |                  |                               |                                                                                                                                                                                              |                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |   |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |              |     |              |
| -02                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | (2.54) .100  |                  |                               |                                                                                                                                                                                              |                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |   |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |              |     |              |
| -03                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | (3.18) .125  |                  |                               |                                                                                                                                                                                              |                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |   |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |              |     |              |
| -51                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | (4.83) .190  |                  |                               |                                                                                                                                                                                              |                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |   |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |              |     |              |
| -52                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | (5.21) .205  |                  |                               |                                                                                                                                                                                              |                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |   |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |              |     |              |
| -53                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | (7.24) .285  |                  |                               |                                                                                                                                                                                              |                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |   |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |              |     |              |
| -54                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | (8.51) .335  |                  |                               |                                                                                                                                                                                              |                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |   |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |              |     |              |
| -55                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | (9.91) .390  |                  |                               |                                                                                                                                                                                              |                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |   |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |              |     |              |
| -56                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | (10.29) .405 |                  |                               |                                                                                                                                                                                              |                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |   |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |              |     |              |
| -57                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | (10.92) .430 |                  |                               |                                                                                                                                                                                              |                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |   |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |              |     |              |



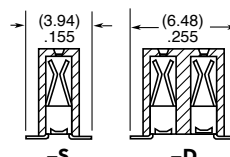
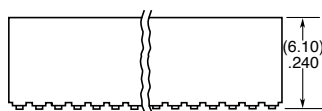
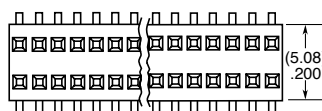
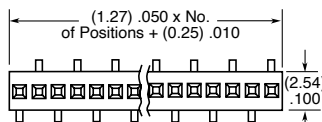
## PROCESSING

**Lead-Free Solderable:**  
Yes  
**SMT Lead Coplanarity:**  
RSM: (0.10 mm) .004" max  
FTR: (0.10 mm) .004" max (02-20)  
FTR: (0.15 mm) .006" max (21-40)\*  
\*(.004" stencil solution may be available; contact ipg@samtec.com)

| RSM                                                                                                                                                                                                          | 1 | NO. PINS PER ROW | 02 | PLATING OPTION                                                                                                                                        | ROW OPTION                                                          | OPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|------------------|----|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                              |   | 02 thru 36       |    | <p><b>-F</b><br/>= Gold flash on contact,<br/>Matte Tin on tail</p> <p><b>-L</b><br/>= 10 μ" (0.25 μm)<br/>Gold on contact,<br/>Matte Tin on tail</p> | <p><b>-S</b><br/>= Single Row</p> <p><b>-D</b><br/>= Double Row</p> | <p><b>-K</b><br/>= (6.25 mm) .246" DIA<br/>Polyimide film<br/>Pick &amp; Place Pad<br/>(5 positions<br/>minimum for -D)<br/>(7 positions<br/>minimum for -S)</p> <p><b>-P</b><br/>= Plastic Pick &amp;<br/>Place Pad<br/>(5 positions<br/>minimum for -D)<br/>(6 positions<br/>minimum for -S)</p> <p><b>-TR</b><br/>= Tape &amp; Reel</p> <p><b>-FR</b><br/>= Full Reel Tape &amp; Reel<br/>(must order max.<br/>quantity per reel;<br/>contact Samtec for<br/>quantity breaks)</p> |
| <p>(1.27) .050 x No.<br/>of Positions + (0.25) .010</p> <p>(2.54)<br/>.100</p> <p>(5.08)<br/>.200</p> <p>(6.10)<br/>.240</p> <p>(3.94)<br/>.155</p> <p>(6.48)<br/>.255</p> <p><b>-S</b></p> <p><b>-D</b></p> |   |                  |    |                                                                                                                                                       |                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

**ALSO AVAILABLE**  
Contact Samtec

Other platings  
Locking clips



**ALSO AVAILABLE**  
Contact Samtec

Other platings  
Locking clips

**Note:**  
Some lengths, styles and options are non-standard, non-returnable.

samtec.com?FTR or samtec.com?RSM

F-224 (Rev 25APR25)

Unless otherwise approved in writing by Samtec, all parts and components are designed and built according to Samtec's specifications which are subject to change without notice.