

Introduction Of Harwin Outstanding Innovation To Digital Camera Design

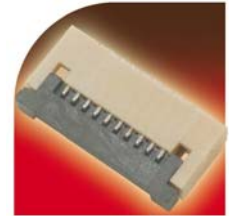
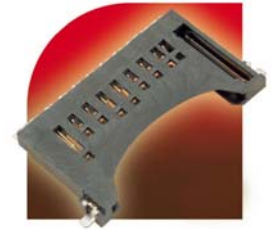
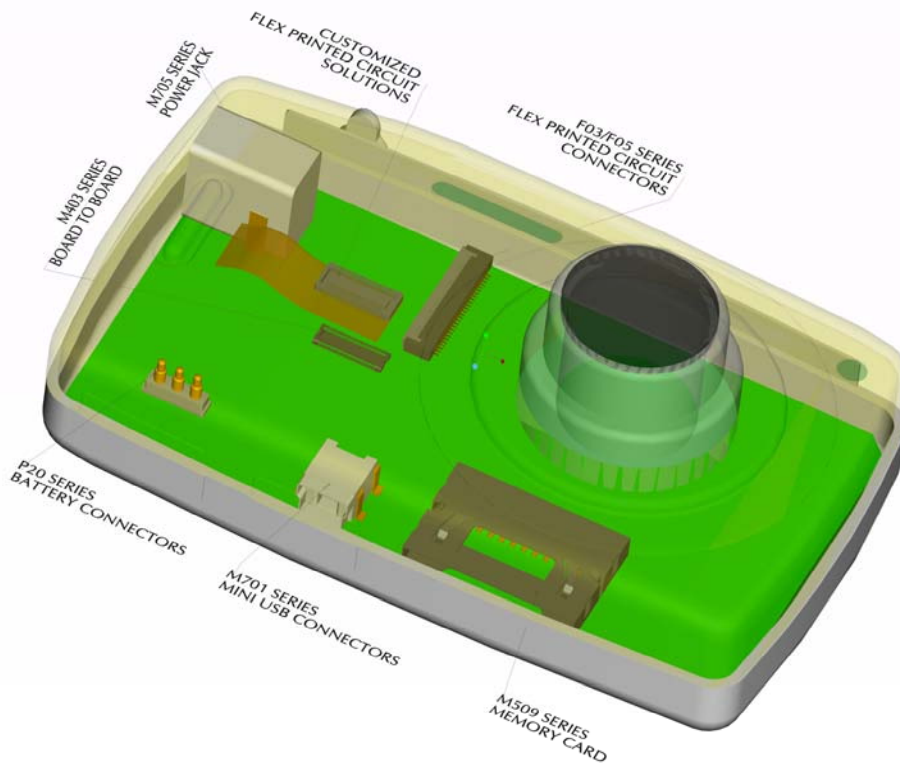
Harwin has developed a wide range of connectors to meet your requirements for Digital Camera design.

Our wide range of connectors – USB, Board to Board, FPC, Wire to Board, Switches and many more are set to meet your industry requirements demand and requirements pertaining to quality, cost, volume and service.

Why Choose Harwin

Connecting the World for more than half a century Harwin global network of manufacturing, sales and support centers and distributors, we're uniquely placed to meet the specialist needs of the world interconnection market. Work closely with clients large and small – including leading international companies and organizations such as NASA, Motorola, Deft University, Raymarine and Powerwave – to offer a personal, solutions-based service where quality and customers care remain our top priority.

Harwin Design Capabilities



Selection category

FPC

| Series | Pitch mm | Mounting | Circuits | Width mm | Height mm | Contact Area | Actuator Type | Finish Plating | |
|--------------|----------|----------|---|----------|-----------|--------------|---------------|----------------|-----------|
| F05E-XX21XXR | 0.3 | R/A | 23 | 4.5 | 1.55 | Bottom | Flip Up | Gold / Tin | |
| F03-300XX45R | | | 13,15,17,19,21,23,25,27,29,31,33,35,37,39,41,45,49,51,57,71 | 3.35 | 1.00 | | Front Flip | Gold | |
| F05-210XX46R | 0.5 | R/A | 6, 8 | 3.70 | 1.20 | Top | Pull Type | Tin | |
| F05E-XX1146R | | | 4 TO 60 | 4.40 | 2.00 | Bottom | | | |
| F05E-XX2146R | | Top | | | | | | | |
| F05E-XX3146R | | SMT | | | | | | | |
| F08-200XX46 | 0.8 | R/A | 3 TO 30 | 5.60 | 2.40 | Bottom | Pull Type | Tin | |
| F08-210XX46 | | | | | | Top | | | |
| F10-100XX46 | 1.0 | DIP | 4 TO 32 | 5.00 | 4.00 | Top | Pull Type | Gold | |
| F10-110XX46 | | Bottom | | | | | | | |
| F10-120XX46 | | VERTICAL | 2.45 | 5.30 | Top | | | | |
| F10-390XX46 | | R/A | 4 TO 30 | 3.60 | 1.55 | Bottom | | | Flip Up |
| F10-480XX46 | | | 4 TO 24 | 4.10 | 1.20 | Top | | | Slide out |
| F10-490XX46 | | Bottom | Pull Type | | | | | | |
| F10-520XX46 | VERTICAL | 4 TO 36 | 2.80 | 5.60 | Dual | None | | | |
| F05-400XX45R | 0.5 | R/A | 8,10,14,16,18,20,30 | 4.30 | 2.00 | Top | Pull Type | Gold | |
| F05-410XX45R | | | | | | Bottom | | | |
| F10-280XX46R | 1.0 | R/A | 3 TO 26 | 3.00 | 3.00 | Bottom | Pull Type | Tin | |
| F10-290XX46R | | | | | | Top | | | |
| F10-295XX46R | | | | | | VERTICAL | | | 3.00 |

Kindly check with sales for available of ways

Board to Board

| Series | Pitch mm | Mounting | Circuits | Gender | Width mm | Height mm | Mating Height mm | Finish Plating |
|---------------|----------|----------|---|--------|----------|------------|------------------|----------------|
| M402FX-XX05R | 0.5 | SMT | 10,12,14,16,20,22,24,26,30,34,40,50,60,70,72,80,90,96,100 | Female | 4.80 | 1.35, 1.85 | 1.50, 2.00, 2.50 | Gold |
| M402MX-XX05R | | | | Male | 2.50 | 1.25, 1.75 | 1.50, 2.00, 2.50 | |
| M403-830XX45R | 0.4 | | 24,34,40,50,54 | Female | 4.50 | 0.80 | 0.90 | |
| M403-835XX45R | | | | Male | 3.36 | 0.65 | 0.90 | |

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Selection category

Board to Board

| Series | Pitch mm | Mounting | Circuits | Gender | Width mm | Height mm | Mating Height mm | Finish Plating |
|-------------------|----------|----------|----------------------|--------|----------|---|------------------|----------------|
| M402VF-3-XXX-XXNR | 0.5 | SMT | 10 TO 160 | Female | 4.80 | 1.50,2.00,2.50,3.00,4.00,5.00,6.00,7.00,8.00,9.00,10.00 | 2.0 TO 17.50 | Tin |
| M402VM-3-XXX-XXNR | | | | Male | 4.0 | 0.5,1.00,1.5,7,7.5 | | |
| M60-60XXX45 | 0.8 | | 10,15,20,25,30,40,50 | Female | 4.35 | 4,5,6 | 5,6,7,8,9 | Gold |
| M60-61XXX45 | | | | Male | | | | |
| M40-600XX46 | 1.0 | | 9,15,21,25,31,41,51 | Male | 4.20 | 3.30 | 4.30 | Tin |
| M40-602XX46 | | | | Female | | | | |

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Memory Connector

| Series | Memory Type | Mounting | Feature | Width mm | Height mm | Durability Cycles | Finish Plating |
|--------------|-------------|----------|--|----------|--|-------------------|---|
| M502-6860942 | SD | SMT | Standard | 28.30 | 3.40 | 5000 Min. | Gold at contact , Tin at Solder tail |
| M502-6870942 | | | Reverse | | | | |
| M502-6880942 | | | Push-Push | 28.50 | 2.65 | 10000 | |
| M502-6890945 | | | Push type Reverse mount | 28.60 | 2.25 | 5000 Min. | Selective Gold and Tin |
| M502-69X0942 | | | Push Push with 1.5MM / 1.8MM Stand off | 28.50 | 2.65 | 10000 | Gold at contact , Tin at Solder tail |
| M502-7010942 | | | Push Push with Card Lock Function | 28.00 | 3.30 | 5000 Min. | Gold at contact , Tin at Solder tail |
| M502-7840942 | | | MANUAL Type with 0.00mm Standoff | 27.40 | 3.40 | 10000 | Gold |
| M502-7850942 | | | MANUAL Type with 0.00mm Standoff W/ Card protection function | 27.60 | 3.05 | 5000 Min. | |
| M503-3382442 | | | Smart Media | | MANUAL Type with 0.00mm Standoff W/ Card protection function | 40.40 | 3.19 |

Kindly check with sales if requirement different from above standard

Selection category

Memory Connector

| Series | Memory Type | Mounting | Feature | Width mm | Height mm | Durability Cycles | Finish Plating |
|--------------|--------------|----------|--|----------|-----------|-------------------|--|
| M503-4501842 | XD | SMT | Stardoff Height 0.1 , 1.3 , 2.1 mm | 28.45 | 2.00 | 5000 Min. | Gold at contact , Tin at Solder tail |
| M506-5582042 | Memory Stick | | Standard | 28.00 | 4.40 | | |
| M509-5381142 | Mini SD | | | 24.00 | 2.63 | | |
| M509-5391142 | | | Push-Push | 24.90 | 1.54 | | |
| M509-5421145 | | | Push-Push , Reverse Type | 25.00 | 2.15 | | |
| | | | | | | | Gold |

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Selection category

I/O and Mini USB

| Series | Type | Mounting | Post | Pitch | Width mm | Height mm | Pins | Finish Plating |
|--------------|----------|----------|---------|-------|----------|-----------|------|--|
| M701-340542 | B | SMD | With | 0.8 | 7.70 | 4.00 | 5 | Selective Gold and Tin |
| M701-350542 | AB | Vertical | Without | 1.6 | 7.74 | 3.95 | 5 | Gold at contact , Tin at Solder tail |
| M710-9352205 | Cellular | SMT | With | 0.50 | 7.20 | 4.80 | 22 | Gold |
| M710-9362405 | | | | | | | 24 | Gold |

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DC Power and Phone Jack

| Series | Mounting | Pins | Center pin Diameter mm | Width mm | Height mm | Durability Cycles | Finish Plating |
|---------------|----------|------|------------------------------|-------------|--------------|----------------------|-------------------|
| M705-7X0046 | SMT | 3 | 2.00 / 2.50 | 13.00 | 15.70 | 5000 Min. | Tin |
| M705-810046 | | | 2.80 | 5.00 | 5.00 | | |
| M706-20X0746 | | 7 | 2.50 | 7.80 | 3.40 | | Gold |
| M706-2100645 | | 6 | | 5.00 | 3.20 | | |
| M706-50X0445 | | 4 | 3.50 | 6.00 | 5.00 | | Tin |
| M706-5090546R | | 5 | 2.50 | 6.80 | 3.00 | | |
| M706-5100646R | | 6 | 2.50 | | 3.10 | | Gold |
| M706-7101245 | | 12 | 2.50 | 11.80 | 3.40 | | |

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Switch

| Series | Pins | Mounting | Operating Force | Width mm | Height mm | Durability Cycles |
|---------------|------|----------|--------------------------------|----------|-----------------------------------|------------------------------------|
| M801-3001100 | 4 | SMT | 160+/-50G | 5.20 | 0.80 | 100000 |
| M801-31X0X00R | | | 160+/-50G / 260+/-50G | 6.20 | 4.30,5.0,7.00,7.30, 9.50,13.00 | 200000 = 160gf , 100000 = 260gf |
| M802-2001X00R | | | 160+/-50Gf / 220+80 / -70gf | 3.50 | 1.65 | 100000 |
| M802-2200400R | | | 160+/-50Gf | 2.50 | 3.50 | 100000 |

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Selection category

Battery Connector

| Series | Pitch | Pins | Mounting | Operating Force | Width mm | Height mm | Durability Cycles | Finish Plating |
|-------------|-------|------|----------|-----------------|----------|-----------|-------------------|----------------|
| P20-0245R | 2.40 | 2 | SMT | 110g +/- 20% | 2.70 | 5.0 | 10000 | Gold |
| P20-0345R | 2.50 | 3 | | 120g +/- 20% | 2.30 | 4.20 | | |
| P20-0445R | 2.50 | 4 | | 2.50 | | | | |
| P20-0545R | 2.54 | 5 | | 80g +/- 20% | 4.50 | 5.50 | | |
| P20-3000245 | 2.50 | 2 | | 120g +/- 20% | 2.50 | 4.50 | | |
| P30-0345R | 3.0 | 3 | | 110g +/- 20% | 2.50 | 8.50 | | |

Kindly check with sales if requirement different from above standard

Wire To Board Connector

| Series | Description | Pitch (mm) | Pins | Mounting | Finish Plating |
|---------------|-------------------|------------|----------------|----------|-----------------|
| M480-810XX45 | Housing | 0.4 | 20, 30, 40, 50 | - | Gold |
| M480-811xx00R | Shell | 0.4 | 20, 30, 40, 50 | - | Stainless Steel |
| M480-812XX42R | Wafer | 0.4 | 20, 30, 40, 50 | SMT | Selective Gold |
| M40-110XX00 | Crimp Housing SIL | 1.0 | 2 ~ 20 | - | PBT |
| M40-120XX00 | Crimp Housing DIL | 1.0 | 2~50 | - | PBT |
| M40-1000046 | Crimp Terminal | - | - | - | Tin Plate |
| M40-301XX46R | Wafer Top Entry | 1.0 | 2~20 | SMT | Tin Plate |
| M40-401XX46R | Wafer Side Entry | 1.0 | 2~20 | SMT | Tin Plate |

Cable assembly , Flexible Printed Circuit , RF cable Assemblies , standard or customize cable Harness are available as well



Please contact Harwin or email to sales@harwin.com.sg for order information or customize design.