





# Total Technologies, Ltd<sup>®</sup>

*"Cost Down and Quality Up™"*

Total Technologies, Ltd. (TTL) is a highly diversified manufacturer of various OEM/ODM cable assemblies, adapters and multimedia interfaces, since 1982. With over 1,200 employees for Global support, 15 worldwide patents, and 60,000 designs, TTL is a promising and outstanding cable supplier. TTL currently produces 7 million assorted cable assemblies and adapters per month. TTL provides high quality products to many of the largest multimedia, telecommunication and computer related peripherals, components and accessories manufacturers in the world. TTL's ECO-Friendly products are designed to meet worldwide requirements such as RoHS, EPA, and California Proposition 65. TTL has been certified by Sony as their first Green Partner with a perfect rating in the cable and connector category. TTL offers excellent R&D design and engineering services, quick lead-time, plus sales and customer support at its offices in Irvine, California, Taiwan, China, Japan, and Germany.



U.S.A Headquarter



Taiwan Office



China factory

## Why Choose TTL's HDMI Cable?

### ■ **HDMI™ ATC Compliance testing approved.**

On **October 6, 2004**, Total Technologies, Ltd. is proud to announce that its HDMI to HDMI (5 meter) cable has passed Silicon Image's ATC compliance testing. TTL's HDMI licensed product successfully completed ATC compliance testing in accordance with the HDMI Compliance Test Specification, revision 1.1.

### ■ **Benefits of the Patented RF-BLOK™ shielded design:**

1. ECO design.
2. Reduced interference from one piece seamless EMI/RFI shielded metal can.
3. No requirement of ferrite cores as signal loss and degradation are greatly reduced giving enhanced signal sharpness. Without the ferrite cores the cables is less stressed and more flexible.
4. No soldering requirements as interconnect design needs no 360° soldering - eliminating the possibility of human error and/or cracking of the solder that causes grounding intermittence and the use of the most hazardous waste material - soldering flux.
5. Increased insulation resistance up to 45%.
6. No inner mold - avoids the potential damage that can be occurred during injection molding process.
7. Smaller overall dimensions which allows more room behind the host or peripheral.

**HDMI™**  
HIGH DEFINITION MULTIMEDIA INTERFACE



**RF-BLOK™**

Patent US 6,287,148 B1  
US 6,776,665 B2  
US D483, 373 S  
Other worldwide patents pending



# Total Technologies, Ltd<sup>®</sup>



## S0182 Unique Connector System

*\* Industrial + Medical + Automotive Applications*

*\* Digital + Analog + Control + Power Signals All-In-One*



[www.total-technologies.com](http://www.total-technologies.com)

**TMDS, LVDS, Digital, Analog, Audio, MIC, USB, DDC, Control, Plus 5 Amp Power Pins x 2, ALL-IN-ONE Low Profile Connector Design.**



*\* 100% EMIRF-BLOK™ shielded Metal Hood, resulting in no Ferrite Cores required.*

*\* High reliable patented SupraLok™ design.*

*\* Cost effective product.*

*\* Fully shielded with all UL components.*



**WATERPROOF CABLES**

**IN-WALL (PUSH-PULL)  
THREADED LOCK TYPE  
D-SUB TIGHT-FIT**



**IP65-IP68**



*Circular Din Male/Female*



*USB 3.0 Type A Male/Female*



*Circular Din 90° Female/Female*



*Circular Din Pull Cap*



*Circular Din 90° Female/Male*



*Circular Din 90° Female/Female*



*Universal Add-On Cap*



*Circular Din Female/Female*



*RJ 45 Male/Female*



*USB Type B Male/Female*



*BNC Male/Female*



*DVI Male/Female*



*DVI Male/Female w/Panel*



*VGA Male/Female*



*USB 2.0 Type A Male/Female w/Panel*

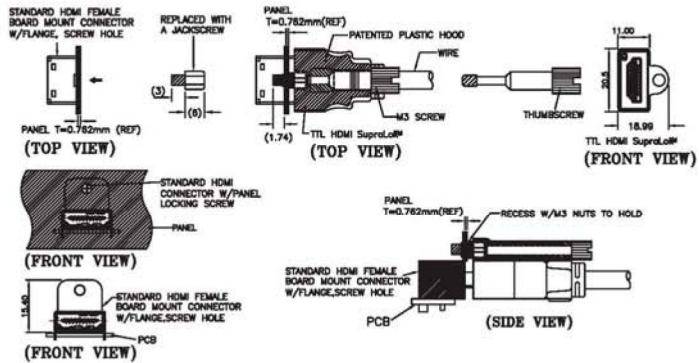


# Total Technologies, Ltd<sup>®</sup>

**SupraLoK™ system in action, confirmed by HDMI™ founders**



TTL's patented (US 6,929,501 B2) uni-screw *SupraLoK™* system is the first HDMI permanent locking system accepted and confirmed by HDMI LLC. founders. This legacy design is backwards compatible and easily to be adopted without changing any PCB footprint on existed HDMI connectors.



## FEATURES AND BENEFITS:

- HDMI 19 pin receptacle with flange is currently a standard hdmi female receptacle.
- Legacy design is backwards with TTL patented US 6,929,501 B2 design.
- Existing PCB footprint on HDMI sinks and sources will not need to be changed.
- Easily adapt the *SupraLoK™* system by replacing the existing locking screws with a jackscrew.
- 100% mechanical fastening, utilizing an overmold alignment feature to aid the thumbscrew to screwlock mating.
- HDMI cable plugs that use the *SupraLoK™* locking system are designed to avoid blocking any type of connector mounted close to the HDMI input/output.
- Overall height of the *SupraLoK™* interface is within the dimension of any flange mounted HDMI receptacle.
- The *SupraLoK™* locking design is an easy, quick, cost saving solution, designed to solve existing Intermittance, form, fit, and function problems the HDMI LLC and CE industry is currently faced with.

**“Connect with TTL's new *SupraLoK™* to add value to your HDMI product line”**

[www.total-technologies.com](http://www.total-technologies.com)

© 09-2006 Total Technologies, Ltd. All rights reserved. All trademarks/logos shown are owned by respective proprietors.



# Total Technologies, Ltd<sup>®</sup>



## HDMI/DVI Wall Plates with patented *SupraLok*<sup>™</sup> system



### FEATURES:

- TTL's wall plates are now available in 1,2,3, and 4 port configurations. USA, UK, EU and other countries standard dimensions (with multiple gangs) are also available upon request.
- Each wall plate can be assembled with various HDMI and DVI patented adaptors from TTL, individually to provide the flexibility of cable inputs from straight, top, bottom, left and right side entries.
- Each individual TTL HDMI/HDMI, HDMI/DVI, DVI/DVI Adaptor is fully shielded with TTL's patented RF-BLOK<sup>™</sup> (Patent No.:US6,278,148 B1) Die-cast metal can to provide not only the best high frequency EMI/RFI shielding, but a very robust solution.
- All HDMI female adaptors are designed with TTL's patented SupraLok<sup>™</sup> locking system (Patent No.: US 6,929,501 B2) to provide temporary and permanent locking connections, in order to prevent any cable weight/stress hanging problems.
- TTL's Patented HDMI and DVI Super Slim And Compact (SSAC<sup>™</sup>) size adaptors provide minimum signal loss, with an easy form fitting, all-in-one interconnect.
- Environment protection (Eco-Friendly) products are manufactured to meet RoHS and worldwide requirements.
- TTL wall plates are made with a deluxe stainless steel plate. Plastic materials will also available upon request.
- DVI in-wall installation, TTL has the best design to fit standard conduit up to 15 meters (P/N: DVIM-IWD-15M) long.
- TTL's famous SLAC<sup>™</sup> and HI-PQ<sup>™</sup> long distance cables are also available with NEC CL2, CL2R, and CL3 rated wires upon request.
- TTL's wall plates can be purchased with pre-assembled HDMI or DVI adaptors, per our customer's request. Also, the stainless wall plates and the HDMI/DVI adaptors can be purchase separately to create maximum solution for different combinations during any installation.

#### U.S. Headquarter

(800) 669-4885 or NOW-4-TTL  
Tel: (949) 465-0200  
Fax: (949) 465-0212  
ttlus@total-technologies.com

#### Taiwan Office

Tel: 886-2-8797-6868  
Fax: 886-2-8797-6969  
total@ttlpe.com.tw

#### TTL Network GmbH

Tel: 49-5201-7361-10  
Fax: 49-5201-7361-17  
info@ttl-network.de

#### Japan Office

Tel: 81-426-45-0092  
Fax: 81-426-45-2837  
ttl-japan@nifty.com

[www.total-technologies.com](http://www.total-technologies.com)

© 09-2006 Total Technologies, Ltd. All rights reserved. All trademarks/logos shown are owned by respective proprietors.

# Adapters / Wall Plates



# Multi-Connector / HDMI





# Wire Harness Assemblies





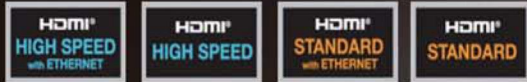
# Total Technologies, Ltd<sup>®</sup>

**HDMI™**  
HIGH DEFINITION MULTIMEDIA INTERFACE

1st in the WORLD



LONGEST  
in the World

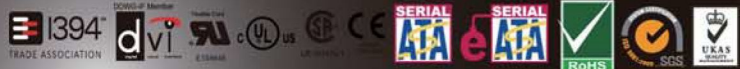


- INDUSTRIAL CABLES
- MEDICAL CABLES
- CUSTOMER MADE CONNECTORS & CABLES
- SNAKE CABLES
- WIRE HARNESS ASSEMBLIES
- USB 3.0 CABLES, SATA CABLES
- DisplayPort (Mini-DisplayPort) CABLES
- WATERPROOF CABLES (IP65-IP68)

## WALL PLATES



Pb leadfree



HDMI FEMALE CABLE TYPE  
WITH DIE CAST CAN™  
WITH SUPRALOK™  
WITH PANEL MOUNT  
COPYRIGHT

## USB LOCKING TYPE



HDMI 90 DEGREE TYPE  
WITH DIE CAST CAN



SATA LATCH/SCREW TYPE



Total Technologies, Ltd.<sup>®</sup> is the First Cable Company in the World to Pass  
HIGH SPEED HDMI™ with Ethernet testing and received the Longest Cable approval.



Total Technologies, Ltd.®



Standard A to Standard B



Standard A to Standard A

Move on to the next generation

# USB 3.0 . SuperSpeed bus

## Comparing SuperSpeed to USB 2.0

Characteristic	SuperSpeed USB	USB 2.0
Data Rate	SuperSpeed (5.0 Gbps)	low-speed (1.5 Mbps), full-speed (12 Mbps), and high-speed (480 Mbps)
Data Interface	Dual-simplex, four-wire differential signaling separate from USB 2.0 signaling Simultaneous bi-directional data flows	Half-duplex two-wire differential signaling Unidirectional data flow with negotiated directional bus transitions
Cable signal count	Six: Four for SuperSpeed data path Two for non-SuperSpeed data path	Two: Two for low-speed/full-speed/highspeed data path
Bus transaction protocol	Host directed, asynchronous traffic flow Packet traffic is explicitly routed	Host directed, polled traffic flow Packet traffic is broadcast to all devices.
Power management	Multi-level link power management supporting idle, sleep, and suspend states. Link-, Device-, and Function-level power management.	Port-level suspend with two levels of entry/exit latency Device-level power management
Bus power	Same as for USB 2.0 with a 50% increase for unconfigured power and an 80% increase for configured power	Support for low/high bus-powered devices with lower power limits for un-configured and suspended devices
Port State	Port hardware detects connect events and brings the port into operational state ready for SuperSpeed data communication.	Port hardware detects connect events. System software uses port commands to transition the port into an enabled state (i.e., can do USB data communication flows).
Data transfer types	USB 2.0 types with SuperSpeed constraints. Bulk has streams capability (refer to Section 3.2.8)	Four data transfer types: control, bulk, Interrupt, and Isochronous

www.total-technologies.com



Total Technologies, Ltd.®



Next Generation  
Digital Display technology

## DisplayPort . Cables / Adaptors

The fastest refresh rates.  
Billions of colors. Crystal-clear audio.  
Get the most out of Blu-Ray and 3D graphics.  
The deepest color depths. Powered connectors.



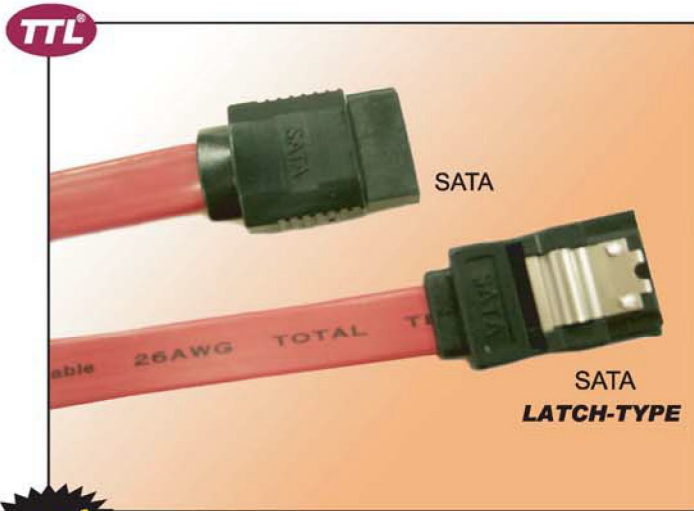
www.total-technologies.com

Mini-DisplayPort . VGA . DVI . HDMI . DisplayPort



# Serial ATA- I and -II Cables

## Serial ATA 7-I and -II PIN AND 15 PIN CABLES



**new!**

Serial ATA-I / II with overall metal shielding also available!



● SATA-I Latch Type



● SATA-I 90 Degree



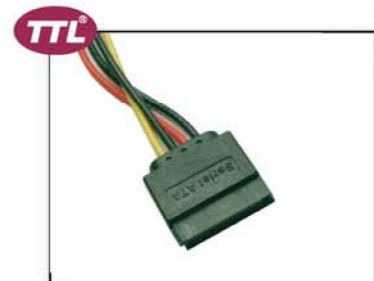
● SATA Power with latch



● SATA II



● SATA Power with latch



● SATA Power without latch

### Serial ATA -- Enabling the Future

Serial ATA is an evolutionary replacement for the Parallel ATA physical storage interface. Serial ATA is scalable and will allow future enhancements to the computing platform.

- Scalability—Serial ATA is a **point-to-point connection** and allows multiple ports to be aggregated into a single controller that is typically located either on the motherboard or as an add-in, RAID card
- Performance—Serial ATA technology will deliver **1.5 Gbps (150 MB/sec)** of performance to each drive within a disk drive array.
- Cabling—Serial ATA specifies a thin, point-to-point connection which allows for easy cable routing within a system. **This avoids master/slave, "daisy-chaining", and termination issues.** Also, better airflow can be realized compared to systems with wider ribbon cables.



# Product List





# Total Technologies, Ltd.®

Your Reliable Manufacturing Partner Since 1982.

Since 2002, Total Technologies, Ltd.® has been certified by SONY® as a Green Partner.



PoHS  
REACH



California  
PROP.65



EPSON  
Certification



FUJITSU  
Notification



SONY  
Green Partner



**Confirmation of ATC Compliance Testing**

The following DVI-D (Control Panel) Connector is certified ATC Compliant. Having in accordance with the ATC 2001 Licensing. For information please visit [www.atc.com.tw](http://www.atc.com.tw) Technical Training Center website below:

Attester Information	
Company Name:	Attestation:
Company Address:	Year of Issuance: 1st
Company Website:	Website: www.atc.com.tw
Attester Name:	ATC License No.:
Attester Address:	License Validity:
Attester Phone:	License Issue Date:
Attester Email:	License Validity:

Product Information	
Category:	DVI-D
Product Name:	ATC 2001 License, 1st Issue, 1st
Product Model:	ATC 2001 License, 1st Issue, 1st
Product Description:	ATC 2001 License, 1st Issue, 1st

Confirmation of Attestation Testing Center	
Center Name:	Attestation Center
Center Address:	Attestation Center
Center Phone:	Attestation Center
Center Email:	Attestation Center

Background: Total Technologies, Ltd. is a leading manufacturer of high-quality cables and connectors. The company is committed to providing reliable and durable products to its customers. The ATC 2001 License is a testament to the company's commitment to quality and compliance with international standards.



**Total Technologies, LTD.**

**U.S. Headquarters**  
 9710 Research Dr. Irvine, CA92618  
 TEL: (949) 465-0200  
 (800) 669-4885 NOW-4-TTL  
 FAX: (949) 465-0210  
 e-mail: [ttlus@total-technologies.com](mailto:ttlus@total-technologies.com)

**Taiwan Office**  
 8F, No. 435 Rui-Guang Rd.,  
 Nei-Hu Dist. Taipei 114, Taiwan  
 R. O. C  
 TEL: +886-2-87976868  
 FAX: +886-2-87976969  
 e-mail: [total@ttlpe.com.tw](mailto:total@ttlpe.com.tw)

**China Factory**  
 Putaoling Zhen-Hwa Industrial Park,  
 Post code#523506 Chi-Shi Town,  
 Dongguan City, Guan-Dong, P. R. C.  
 TEL: +86-769-86662819  
 FAX: +86-769-86663919



[www.total-technologies.com](http://www.total-technologies.com)

© Copyright 02-2005. TTL is a registered trademark of Total Technologies, Ltd. All rights reserved. All other trademarks are the property of their respective owners. Ref. New Product Intro 1.0