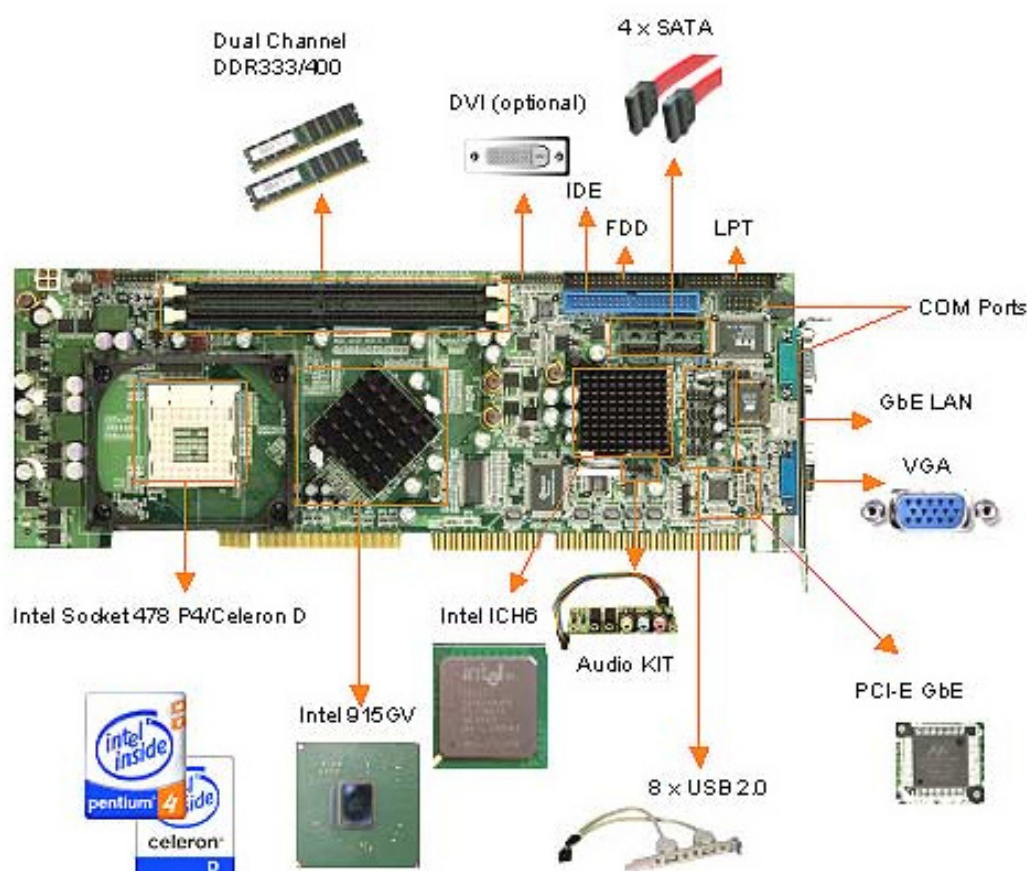


WSB-9150 *Best cost performance ratio in socket 478 ever!*

PICMG 1.0 Socket 478 800MHz FSB CPU board with PCI Express Gb Ethernet



1. Doing More, Faster

Increase system performance through new Intel chipset technology.

2. Real Gb Ethernet

High performance PCI Express Gigabit Ethernet controller, 145% more bandwidth than others

3. Easy Integration

A complete set of trust-optimized applications that recover, secure or access important data on IEI integrated BIOS and Product Quality Verification process.

4. RoHS Compliance

Meet the RoHS ready product, ready to spec in new long term projects now.



- Datasheet
- Manual
- Specification
- Function Block
- Video Guide
- Ordering Information



▶ Doing More, Faster

▶ New Intel R 915GV chipset

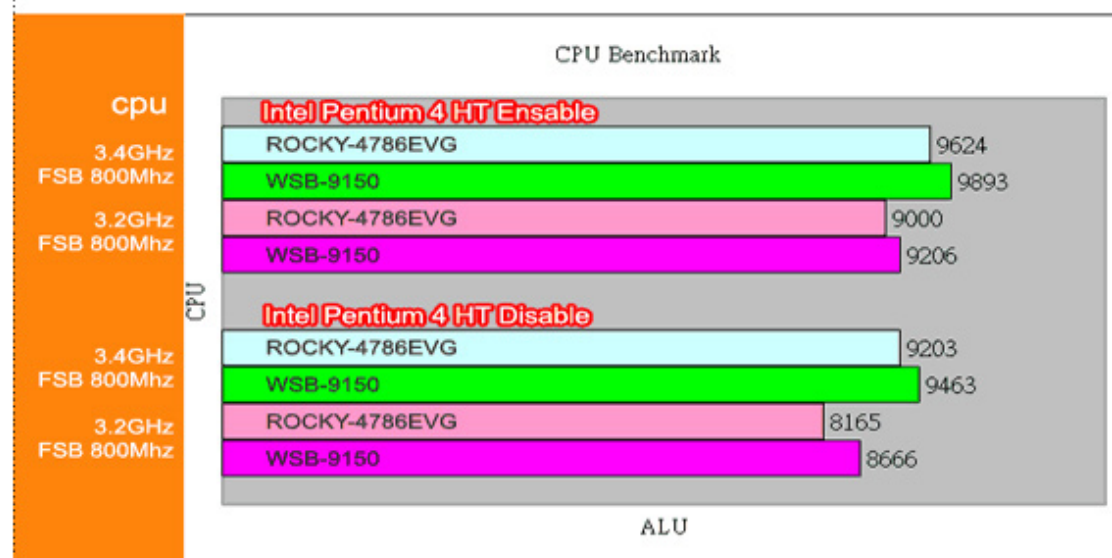
IntelR 915GV Express Chipset-based platform enables the convergence, and delivers enhanced stability, productivity and flexibility for improved business collaboration.

	IntelR845GV	IntelR865GV	IntelR915GV
Processor Positioned	IntelR PentiumR4 processor	IntelR PentiumR4 processor	IntelR PentiumR4 processor
System Bus	533/400 MHz	800/533/400 MHz	800/533 MHz
MCH Type	82845GV GMCH	82865G GMCH	82915G GMCH
Memory Type	DDR 333/266/200, PC133 SDRAM	Dual-Channel DDR 400/333/266	DDR2 533/400, DDR 400/333
Max Memory	2 GB	4 GB	4 GB
Mbit Support	512/256/128 Mbit	512/256/128 Mbit	1Gbit/512 Mbit/256 Mbit
GRAPHICS Core Speed	266 MHz	266 MHz	333 MHz
Video Interface	350MHz DAC 2x12bit DVO*	350MHz DAC 2x12bit DVO*	HDTV and LCD widescreen modes
ICH Type	ICH4	ICH5 / ICH5R	Intel?ICH6 Family,;
PCI Support	PCI 2.2	PCI 2.3	(4) PCI Express x1
IDE	ATA/100 IAA ⁵	SATA 150/2	SATA 150/4, UDMA ATA100
Storage Technology	N/A	RAID w/ICH5R	Intel?Matrix Storage Technology with ICH6R
USB	6 ports, USB 2.0	8 ports, USB 2.0	8 ports, USB 2.0
GbE Dedicated Network Bus	N/A	Yes	Yes
AC'97 Digital Circuits	Enhanced 20-bit Audio	AC'97/20-bit audio	Intel?High Definition Audio, AC?77/20-bit audio

▶ Better CPU performance

Same CPU **BUT BETTER** performance in WSB-9150

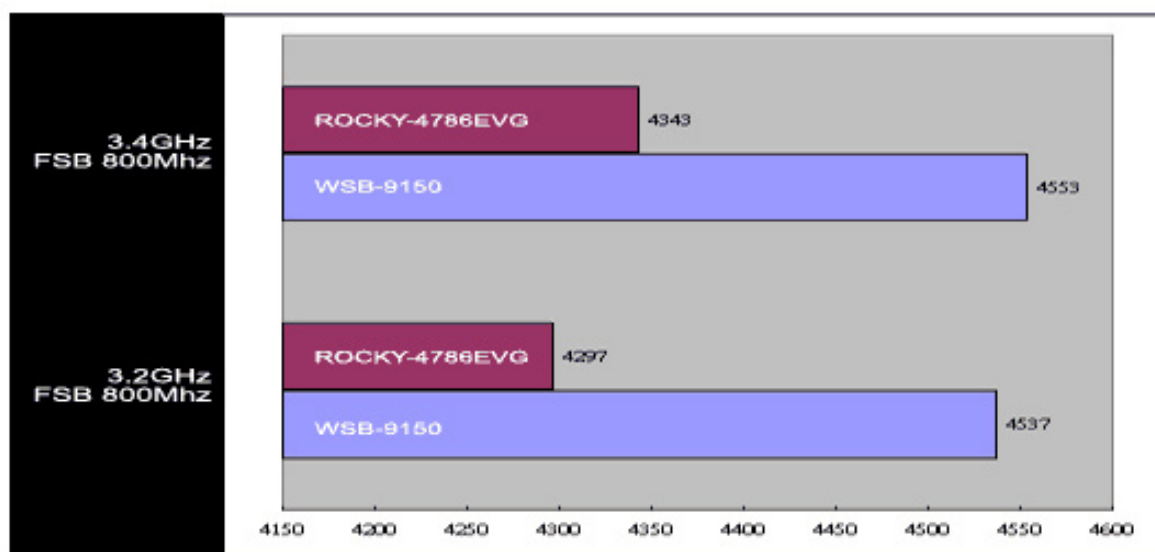
SiSoftware Sandra 2005 SP1 CPU Arithmetic Benchmark (Windows XP)		
	Pentium 4 Intel P4 3.2 GHz FSB 800Mhz HT Disable	Pentium 4 Intel 3.4GHz FSB 800Mhz HT Disable
WSB-9150	8666	9206
ROCKY-4786EVG	8165	9000
	Pentium 4 Intel 3.2 GHz FSB 800Mhz HT Enable	Pentium 4 Intel 3.4GHz FSB 800Mhz HT Enable
WSB-9150	9463	9893
ROCKY-4786EVG	9203	9624



► Increasing Memory bandwidth

Up to dual channel DDR 400 with 1GHz per channel

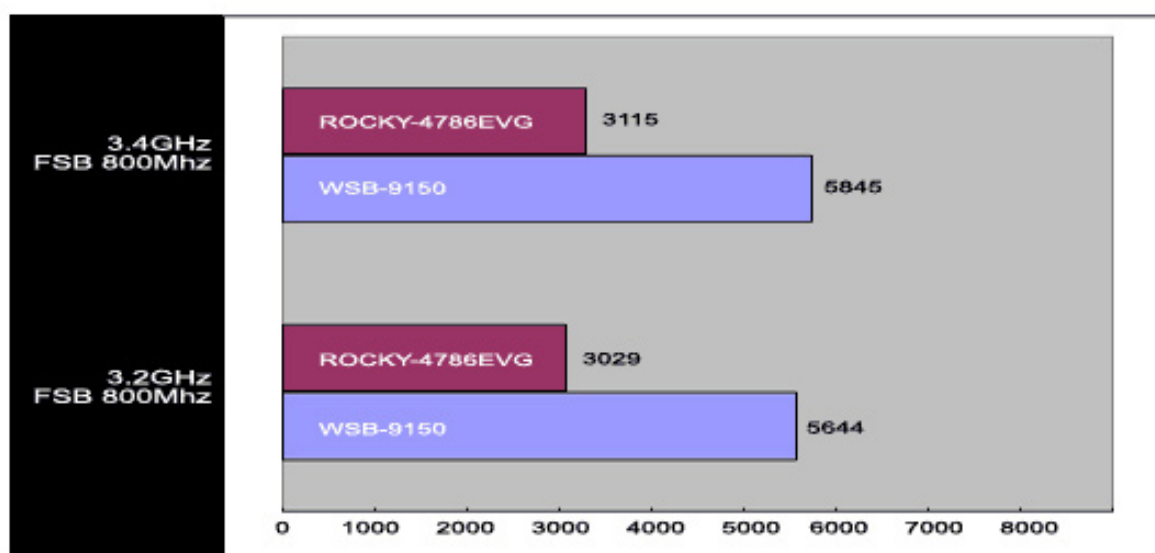
SiSoftware 2005 SP1 Memory Bandwidth Benchmark		
	Pentium 4 Intel 3.2 GHz FSB 800Mhz	Pentium 4 Intel 3.4GHz FSB 800Mhz
WSB-9150	4537	4553
ROCKY-4786EVG	4297	4343



► New Graphic engine

New GMA 900, 86% performance increasing

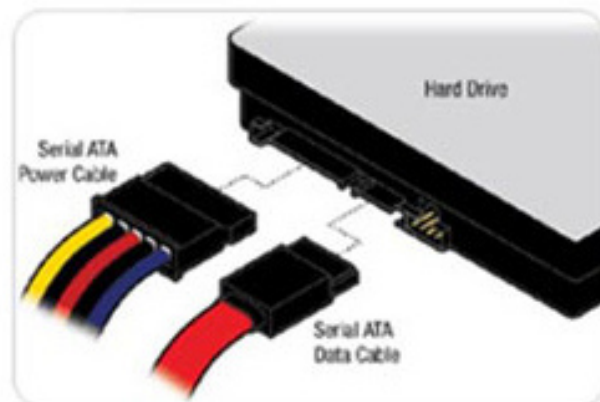
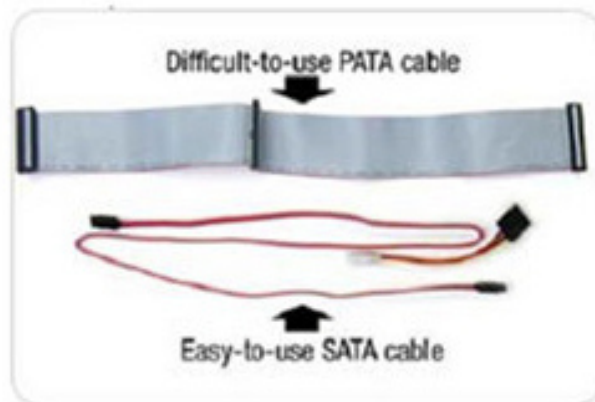
3DMark® 2001SE Build 330		
	Pentium 4 Intel 3.2 GHz FSB 800Mhz	Pentium 4 Intel 3.4GHz FSB 800Mhz
WSB-9150	5644	5845
ROCKY-4786EVG	3029	3115



► 1.5 New Generation Storage solution

It's Easier, Faster, Protective, and it is the future of Economical Storage.

► It is **EASIER**

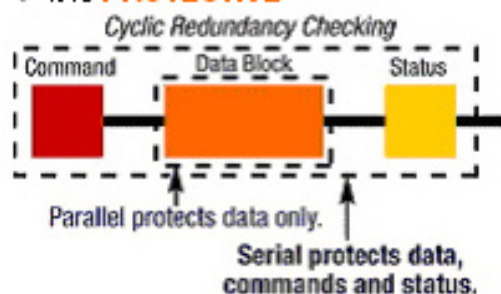


► It is **FASTER**

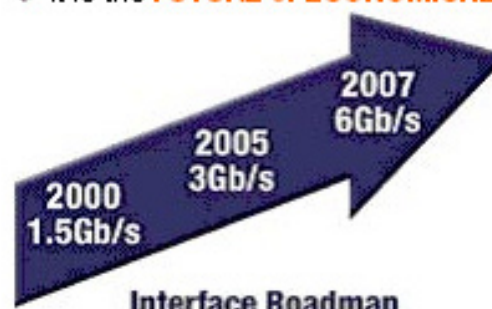
Advantages Over Parallel ATA

Parallel ATA	Serial ATA	SATA Advantage
Up to 133 Mbytes/sec	Up to 150 Mbytes/sec (1.5 Gbits/sec)	Faster, and room for expansion
Tiny Jumpers	No Master/Slave, Point to Point	Ease of use
18" cable	Up to 39" (1 meter) cable	Ease of integration
2"-wide ribbon cable	Thin cable (1/4")	Improved system airflow
80 conductor	7-wire differential (noise canceling)	Eliminates data integrity problems
40 pin and socket	Blade and Beam connector (snap in)	Ease of use
2"-wide data connector	½"-wide data connector	Ease of integration
Onboard DMA controller	First-party DMA support	Performance enhancement
High 5V tolerance for legacy drives	Low voltage (.25V) tolerance	Design improvement
Limited (legacy command queuing)	Intelligent Data Handling	Performance enhancement
—	Hot Swap	Ease of integration/use
CRC on data only	Cyclic Redundancy Check on data, command, status	Enhanced data protection

► It is **PROTECTIVE**



► It is the **FUTURE of ECONOMICAL STORAGE**

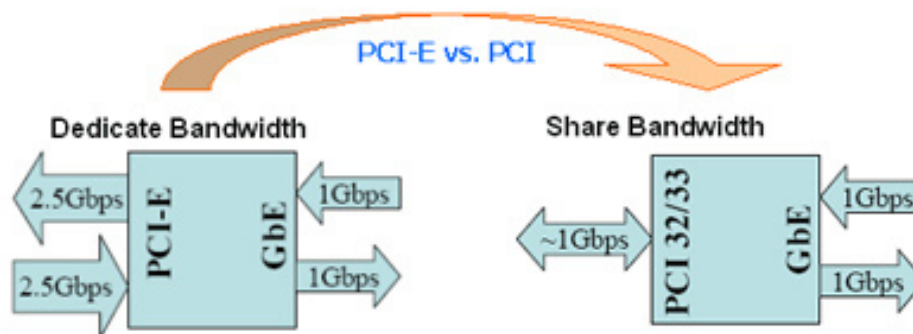


▶ Real Gb Ethernet

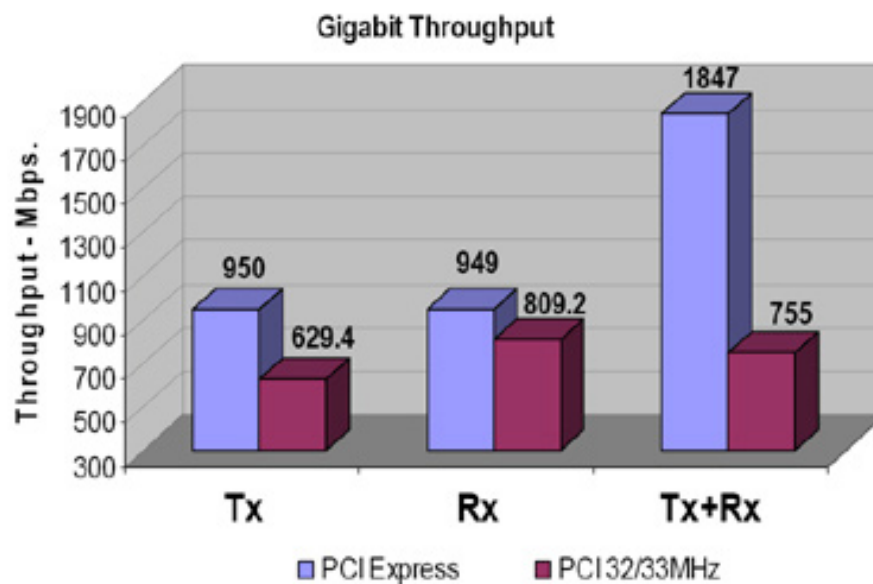
▶ High performance PCI Express Gigabit Ethernet controller, **145% MORE** bandwidth

- PCI-E - 2.5Gbps of raw bandwidth in each direction
- PCI 32 / 33MHz - 1.056Gbps raw bandwidth in both directions
- Gigabit Ethernet - max. bandwidth of 1Gbps in each direction

▶ Performance Difference



▶ Dedicate VS Share Bandwidth



▶ Easy Integration

A complete set of trust-optimized applications that recover, secure or access important data on IEI integrated BIOS and Product Quality Verification process.

BIOS Feature

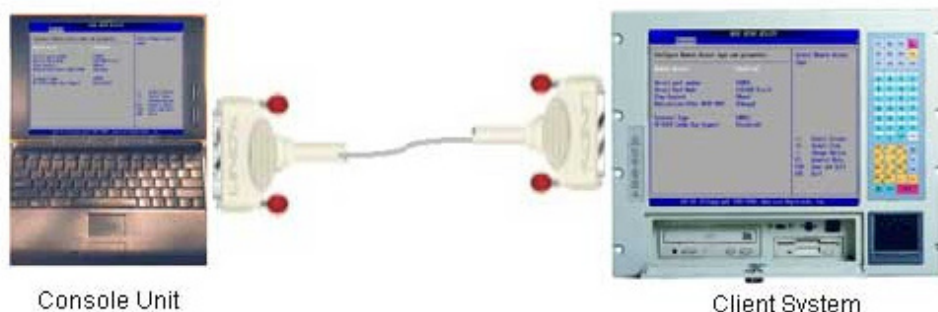
▶ Pre-Boot Execution Environment

1. Booting diskless system, such as thin clients and dedicated systems.
2. Deploying software and OS for new systems.
3. Automating systems maintenance, such as backups.
4. Cost down maintenance fee by central recovery system with no on site requirement.



▶ Console Redirection

Console redirection allows you to maintain a system from a remote location by re-directing keyboard input and text output through the serial port.



▶ User Data Storage area

System Management BIOS (SMBIOS) / Desktop management Interface (DMI) - It allows manufacturers to develop structures to access attributes that are known by the system BIOS.

You can use it as:

- 1: Customizing OEM data and series number for system information track.
- 2: Software and hardware Bundling to protect your development.

▶ OEM Logo Display Function

Ability to enable or disable display Customize EPA or OEM Logo



OEM LOGO

Boots from USB Removable Device

Support for replacing, repairing, or recovering data from damaged hard drive image. With boot-to-USB enabled, the end user has the option to run diagnostic utilities and debug damaged internal system devices through USB-bootable device.

▶ RoHS Compliance

IEI is committed to compliance with all applicable laws and regulations, including the European Union Restriction of Hazardous Substances (RoHS) in electrical and electronic products. The goal is to exceed compliance obligations by meeting the requirements of the RoHS Directive on a worldwide basis. With IEI's new lead free production, all customers can start to work for their long term projects without worry about the RoHS regulation.

▲ TOP

▶ WSB-9150 Specification

- **CPU**
Intel® Socket 478 P4 Prescott// Celeron®-D support 800/533 MHz FSB up to 3.4Ghz with Hyper-Threading Technology.
- **System Chipset**
Intel® 915GV + ICH6
- **BIOS**
AMI Flash BIOS
SMIBIOS (DMI) compliant
Console redirection function support
PXE (Pre-Boot Execution Environment) support
USB booting support
- **System Memory**
2 x DDR 184-pin sockets of PC2700/333MHz and PC3200/400MHz DDR SDRAM
- **Ethernet**
Marvell 8053 PCI-Express GbE controller
- **I/O**
I/O Interface
4 x SATA-150
1 x ATA-100
8 x USB 2.0
2 x RS-232
1 x KB/MS
1 x FDD
1 x IrDA
1 x LPT
- **Display**
Graphic controller
Intel® Graphics Media Accelerator 900 integrated with DB-15 VGA output
DVI (optional)
Silicon Image SIL1362CLU
- **Watchdog Timer**
Software programmable supports 1~255 sec. system
- **Power Supply**
+12V±5%, +5V±5%, -12V±5%
Power Consumption
+12V@9.0A, +5V@8.1A, -12V@0.3A, 5VSB@0.4A (Pentium® 4 Prescott 3.4GHz CPU with 2GB DDR400 DDR-SDRAM)
- **Temperature**
operation: 0 ~ 60° C (32 ~ 140° F)
- **Humidity**
operation: 5% ~ 95% non-condensing
- **Dimension**
338.5(L) mm x 122(W) mm
- **Weight**
0.6kg (board only)/1.1kg (total package)

▶ WSB-9150 Ordering Information

Packing List

1 x WSB-9150 single board computer	1 x ATX-12V cable (P/N: 32100-087100-RS)
1 x Mini jumper pack (P/N: 33100-000079-RS)	1 x RS-232 cable (P/N: 19800-000047-RS)
1 x ATA 66/100 flat cable (P/N: 32200-000052-RS)	1 x USB cable (P/N: CB-USB02)
2 x SATA cable (P/N: 32000-062800-RS)	1 x Utility CD
1 x SATA power cable (P/N: 32100-088600-RS)	1 x QIG (quick installation guide)
1 x Keyboard/ PS2 mouse Y cable (P/N: 32000-000138-RS)	

Ordering Information

Part No.	Description
WSB-9150-R10	PICMG 1.0 Socket 478 800MHz FSB CPU Card with VGA, PCI-Express GbE, S-ATA,USB 2.0
WSB-9150DVI-R10	PICMG 1.0 Socket 478 800MHz FSB CPU Card with VGA, PCI-Express GbE, S-ATA,USB 2.0 and DVI function
CF-519	CPU cooler
AC-KIT-08R	Audio kit
32200-000017-RS	FDD cable
32200-000040-RS	LPT cable