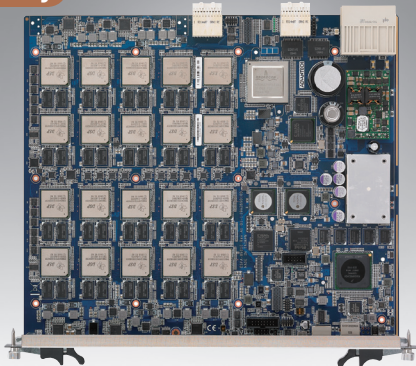


DSPA-8901

AdvancedTCA® DSP Blade Provides Industry's Most Powerful DSP Farm for Voice and Video Processing

Preliminary



Features

- 20 Texas Instruments TMS320TCI6608 DSPs
- 512 MB DDR3 memory per DSP
- BCM56321 10 GbE switch for both Fabric Interface and Base Interface
- Freescale QorIQ™ P2020 for Local Management Processor (LMP)
- IDT Tsi577 Serial RapidIO switches
- Pigeon Point System IPMI 2.0
- Wind River Linux PNE-LE 4.0 support for P2020
- Single slot PICMG 3.0/ 3.1 compliant

Introduction

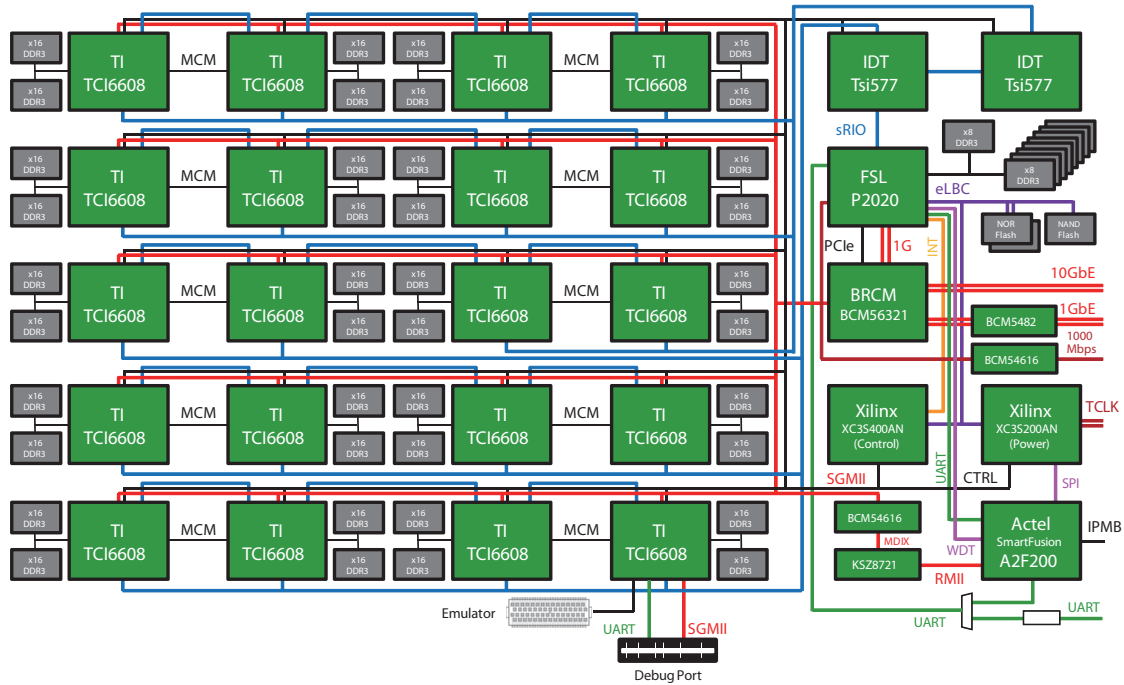
The DSPA-8901 is designed with 20 TI TMS320TCI6608 DSPs. With its twenty onboard TMS320TCI6608 DSPs at 1.0 GHz core frequency, the DSPA-8901 provides 160 cores of processing power to reach the higher levels of performance density needed to build the highest capacity wireless media gateways. The DSPA-8901 significantly reduces overall system power dissipation and system cost, and frees up valuable slots in gateway elements for additional subscriber capacity and throughput. The DSPA-8901 includes a high-performance Freescale QorIQ P2020 processor. The powerful Broadcom BCM56321 switch terminates the 10 gigabit Ethernet fabric connections and distributes traffic to the twenty DSPs. The DSPA-8901 offers unrivaled packet and media processing capabilities.

For increasing demand in high end video conferencing, broadcasting and telepresence fields, the DSPA-8901 ATCA blade also offers unrivaled image processing performance for compression and decompression, image analysis, filtering and format conversion.

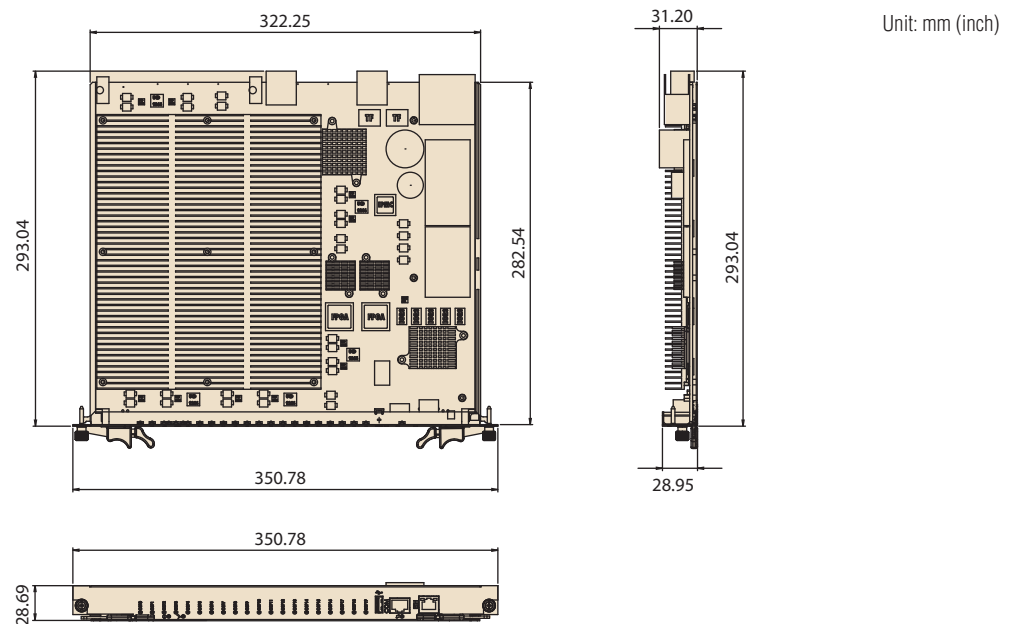
Specifications

DSP Farm	DSP	TI TMS320TCI6608	
	Number of DSPs	20	
	Speed of DSP	1.0 GHz	
	Cores per DSP	8 x TMS320C66x™ DSP @ 1.0 GHz	
	DDR3 Memory per DSP	512 MB	
	Interface	Serial RapidIO interface 1000 Mbps Ethernet with SGMII	
Zone 2	Fabric Interface/Base Interface	1 x Broadcom BCM56321 10 GbE switch 2 x 10 GbE XAUI for fabric interface 2 x 1000 Mbps for base interface	
Serial RapidIO	Serial RapidIO Switch	2 x Tundra/IDT Tsi577 (16-port 3.125 Gb Serial RapidIO switch)	
Local Management Processor (LMP)	Processor	1 x Freescale QorIQ P2020	
	E500 Core Frequency	Up to 1.2 GHz	
	DDR3 Memory	2 GB, 1 x 128 M*8 1 G 1333 MHz (ECC)	
		Interface	Serial RapidIO interface 10/100/1000Mbps Ethernet interfaces PCIe interface USB 2.0 interface
		Boot Flash	Dual boot flashes (redundancy) Redundant pair of 128 MB
	Local Bus	1 x NAND Flash up to 1 GB	
Front I/O Interface	Console Port	1 x RJ-45 (UART)	
	USB Port	1 x Type A	
	Ethernet Management Port	1 x RJ-45	
Front LEDs	DSP Status	Per DSP Dual Color RED/GREEN DSP status (20 total LEDs)	
	Health Status	Green	
	Out of Service	Red/Yellow	
	ATCA Hot Swap	Blue	
Power	Watt	Max. 350 W	
Cooling	Heatsink	Passive Aluminum Cooler	
	Boot Loader	U-Boot	
Software Support	H/W Management	Compliant with Pigeon Point System IPMI 2.0	
	Operating System	WindRiver Linux PNE-LE 4.0/Freescale SDK	
		Dimensions	294.56 x 322.25 mm (11.60" x 12.69")
Physical Dimensions	Weight	3 Kg	
		Operating Environment	Temperature: 0 to 45° C, Humidity: 20% to 90 % RH
Environment		Storage Temperature	Temperature: -20 to 70° C, Humidity: 5% to 95 % RH
	Compliance	EMC/Safety	CE mark (EN60950-2001)
UL60950-1/CSAC22.2			
PICMG		FCC47 CFR Part15, Class A 55022/EN55024/EN300386 3.0/3.1	

Block Diagram



Dimensions



Ordering Information

Model Number	Description
DSPA-8901E	AdvancedTCA TI TMS320TCI6608 DSP Blade w/ 32-bit memory for Voice and Video Processing