» AM4530 Quick Reference Sheet «

Connectors

J2	AMC Gold Fingers
J3	SATA Connector
J5	Serial Port Connector

Jumper Settings

JP1 (1-2) Reserved	
IN	Reserved
•OUT	Reserved

JP1 (3-4) Reserved	
IN	Reserved
•OUT	Reserved

JP1 (5-6) Front Plate Serial Port Select	
IN	Front RJ45 Connected to MMC UART B1
•OUT	Front RJ45 Connected to CPU UART0

JP1 (7-8) MMC Serial Update	
IN	MMC Configured in Serial Update Boot Mode
•OUT	MMC Configured in Normal Operation

• Default Configuration

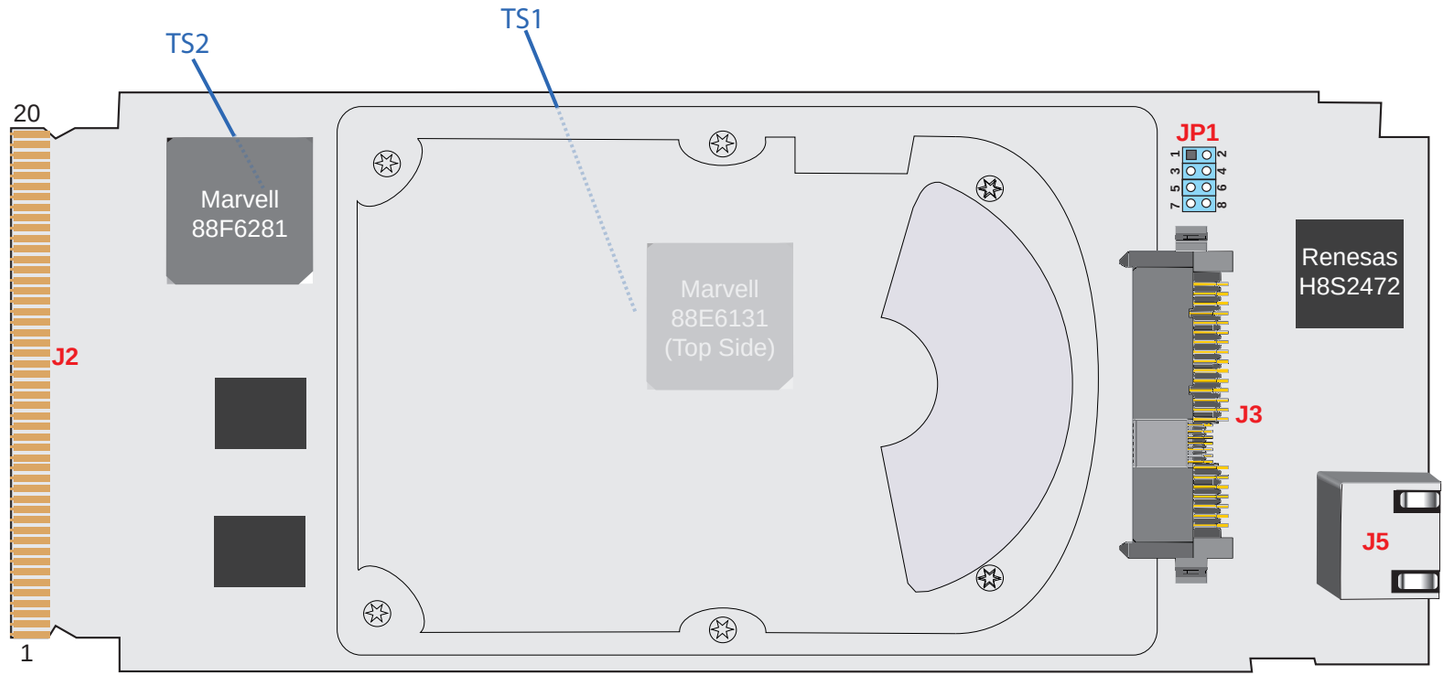
Temperature Sensors

TS1	W83L771A Internal Sensor
TS2	W83L771A Remote Sensor

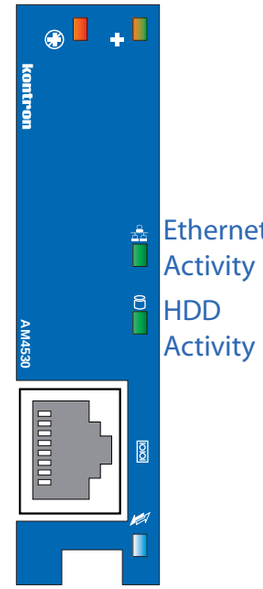
Symbols Chart

- Hot Swap
- Out of Service
- Healthy
- Serial Port (RJ45)

LEDs Signification available on back.



Bottom Side View



SATA HDD or SSD NAS Storage Advanced Mezzanine Card

» AM4530 Quick Reference Sheet «

kontron

J5 - RJ45 Serial Port Connector

1	RTS	5	GND
2	DTR	6	RX#
3	TX#	7	DSR
4	GND	8	CTS

RJ45 to DB9 converter PN: 1015-9404

AMC Port Assignment

Port	Region	Connection
0	GbE	GbE
1	GbE	GbE
2	Storage	-
3	Storage	-
4	Fat Pipe	-
5	Fat Pipe	-
6	Fat Pipe	-
7	Fat Pipe	-
8	Fat Pipe	GbE
9	Fat Pipe	GbE
10	Fat Pipe	-
11	Fat Pipe	-
12	Extended	-
13	Extended	-
14	Extended	-
15	Extended	RS232
16	Extended	-
17	Extended	-
18	Extended	-
19	Extended	-
20	Extended	-
TCLKA	Clock	From Backplane
TCLKB	Clock	-
TCLKC	Clock	-
TCLKD	Clock	-
FCLKA	Clock	PCIe Reference Clock

LEDs Significations

Hot Swap (Blue)

Solid On (100 % on): FRU Inactive
Long Blink (90 % on): FRU Activation Request
Solid Off (0 % on): FRU Activation In Progress / FRU Active
Short Blink (10 % on): FRU Deactivation Request / FRU Deactivation In Progress

Out of service (Red/Amber) [default : Red]

Solid On : MMC in reset
Fast Blink (~50 % on) : MMC upgrade/rollback in progress
Application Defined : May be controlled by application using PICMG API

Health Led (Amber/Green) [default : Green]

Off : Payload power down
Green : Health Ok
Amber : Health Error (Critical)
Application Defined : May be controlled by application using PICMG API

Connecting to the AM453x

1. Insert the AM453x in an uTCA chassis or in an ATCA Carrier Board.
2. Establish a serial connection with the AM453x using the front panel serial port.
   The serial port configuration: 115200 baud, 8 bits, no parity, and 1 stop bit
3. The AMC is pre-programmed with a Linux OS.
   Default login:
   User Name: root
   Password:"root"
4. It is highly recommended to change the root password. The password can be changed by using the "passwd" command.
A new account can be created by using the "adduser" command.

Hard Disk Configuration

1. Partitioning the Hard Disk with fdisk

The fdisk utility is used to manage hard drive disk partitions. Linux allows only 4 primary partitions. To partition the hard disk, the following command should be used:

```
#fdisk /dev/sda
```

The basic fdisk commands are:
p print the partition table
n create a new partition
d delete a partition
q quit without saving changes
w write the new partition table and exit

2. Formating the Hard Disk with mkfs

The mkfs command is used to build a Linux file system on a hard disk partition. This command should be uses with care as it will erase all the data on the device. To format the hard disk, the following command should be used:

```
#mkfs.ext3 /dev/sda1
```

Configuring the AM453x

1. Setting-up Network Configuration

1.1. Setting a Static IP Address

Set the correct values for the 'IPADDR' and 'NETMASK' variables in the /etc/ifcfg-eth0 file. Also, make sure 'BOOTPROTO' is set to 'static'. Example:

```
DEVICE=eth0
IPADDR=192.168.100.10
NETMASK=255.255.255.0
BOOTPROTO=static
ONBOOT=yes
```

1.2. Setting a Dynamic IP Address

Set 'BOOTPROTO' to 'dhcp' in the /etc/ifcfg-eth0 file. Example:

```
DEVICE=eth0
BOOTPROTO=dhcp
ONBOOT=yes
```

1.3. Restarting Network

To take effect a restart of the network is required. To restart the network, use the following command:

```
# /etc/init.d/network restart
```

2. Setting-up a NFS Server

2.1. Preparing a Shared Directory

Create a folder for mounting a disk partition:

```
# mkdir /mnt/disk1
```

Mount the Disk Partition:

```
# mount /dev/sda1 /mnt/disk1
```

The partition can be mounted automatically during the boot. For auto mounting use the following command:

```
# echo "/dev/sda1 /mnt/disk1 ext3 defaults 0 0" >> /etc/fstab
```

2.2. Exporting the Shared Directory

The following command will specify the mounting point to be used as NFS and will set the options.

```
# echo "/mnt/disk1 *(rw,no_root_squash,sync,
no_subtree_check)" >> /etc/exports
```

2.3.Restarting the NFS server

Use the following command to restart the NFS server:

```
# /etc/init.d/nfsd restart
```

Mounting the NFS on a Remote Linux PC

1. Make sure a NFS server is running on a remote machine
2. Create a folder for mounting the remote NFS:

```
# mkdir /mnt/nfs
```

3. Mount the remote NFS :

```
# mount 192.168.100.1:/mnt/disk1 /mnt/nfs
```

Support / Download

North America / Asia - Pacific
1 . E-Mail : support@ca.kontron.com
2. Tel : (800) 354-4223

EMEA
1 . E-Mail : support-kom@kontron.com
2. Tel : +49-8341-803-333

The Quick Reference Sheet can be downloaded from the Kontron web site at:
http://www.kontron.com
or from Kontron FTP site at:
ftp://ftp.kontron.ca/Support/