

COMX-T2081 Quick Start Guide

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1 Box contents

Make sure you receive all items of your shipment:

- One COMX-T2081 module
- One printed copy of Quick Start Guide (this document)
- One printed copy of Safety Notes Summary



When installing or servicing the system or accessories, strictly observe the safety precautions in the *Safety Notes Summary*. Ignoring these instructions can void the system warranty and cause personal injury or property damage.

2 ESD

Use ESD protection



Electrostatic discharge and incorrect installation or removal of the card can damage circuit or shorten its life.

Use a properly grounded ESD wrist strap or work in an ESD-safe environment.

Connect to the ESD connector at the front or the rear of the system.

3 Site preparation

Make sure that all environmental and power requirements defined in the *COMX-T2081 Installation and Use* manual are met.

Operating temperatures refer to the temperature of the air circulating around the board and not to the actual component temperature.

4 Install heat spreader/sink

NOTE: Heat spreader/sink is required; available separately.

1. Install the CPU thermal interface material pad on to heat spreader/sink. CPU thermal pad is received as part of PCB assembly kit.
2. Check the thermal interface material pads on the heat spreader/sink. Make sure the pads are aligned to their corresponding components on the COMX-T2081 module.
3. Align the standoffs of the heat spreader/sink with the screw holes on the module.
4. Hold the heat spreader/sink and the module together and then turn them over.
5. Attach the spreader/sink to the module using (4) integrated/threaded interior standoffs and (4) provided M2.5x6 screws inserted from the bottom.

5 Install module to COMX-CAR-P1 carrier

1. Remove the `Compact' module standoff from the carrier (leaving 5 remaining `Basic' standoffs)
2. Line up the board-to-board connectors of the module assembly with the board-to-board connectors of the carrier board.
3. Make sure that the inter-connectors are properly aligned and apply downward pressure on the module (static or upward pressure on carrier) with a rocking motion, until the five standoffs on the carrier have contact with the bottom of the module.

4. Fasten the module to the carrier board with the M2.5x16 screws provided.
5. If installing fansink, attach fan power connector to header P3 near ATX connector on carrier (provides power only; no tach/control).

For instructions to install any mounting hardware, such as, standoffs supplied with the COMX module or to assemble COMX-TXXXX-FANSNK, refer to the *COMX-T2081 Installation and Use* manual.

6 Connect cables/devices (COMX-CAR-P1)

1. Serial console
 - Connect female end of null-modem cable to the top DE9 at connector P15 on rear panel area of carrier.
 - Connect other end of null modem to terminal (emulator) set for 115200/8/N/1
2. Ethernet (optional)
 - Connect 10/100/1000 Ethernet cable to top (Linux:eth0) or bottom (eth1) RJ-45 port at connector J1 on rear panel area of carrier.
 - In U-Boot: eth0=FM1@DTSEC3 eth1=FM1@DTSEC4
3. USB (optional)
 - Connect USB 1.1/2.0 device to top (usb1) or bottom (usb2) port of connector P4 on rear panel area of carrier.
4. PCIe (optional)
 - Lanes 0-3 (Gen 2x4) ==> PCIe J6
 - Lanes 4-7 (Gen 3x4) ==> PCIe J14
5. Power
 - Connect ATX PSU 20- or 24-pin connector to J12.

7 Ground the system

1. Linux auto-boots to prompt
 - CPU loads RCW, U-Boot from NOR flash
 - U-Boot loads kernel / dtb from NOR flash
 - Kernel mounts rootfs from NAND flash
 - Kernel attempts DHCP for eth0/1
2. Login root, no password
If DHCP fails, *ifconfig* IP address(es)



Technical Assistance

For technical assistance or to report product damage or shortages, contact your local SMART Embedded Computing sales representative or visit <https://www.smartembedded.com/ec/support/>

Get More Information



For more information on this product, see the *COMX-T2081 Installation and Use* manual and other related technical documentation, which can be found by using the Documentation Search at <https://www.smartembedded.com/ec/support/>.



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