

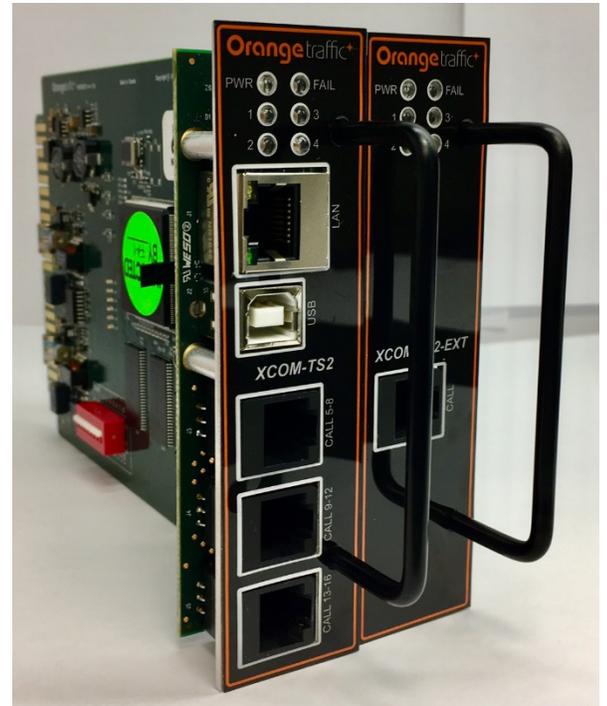
Citilog XCOM-TS2 and XCOM-TS2-EXT

Interface Boards for Citilog XCAM-P specifications

1.1. FUNCTIONALITIES

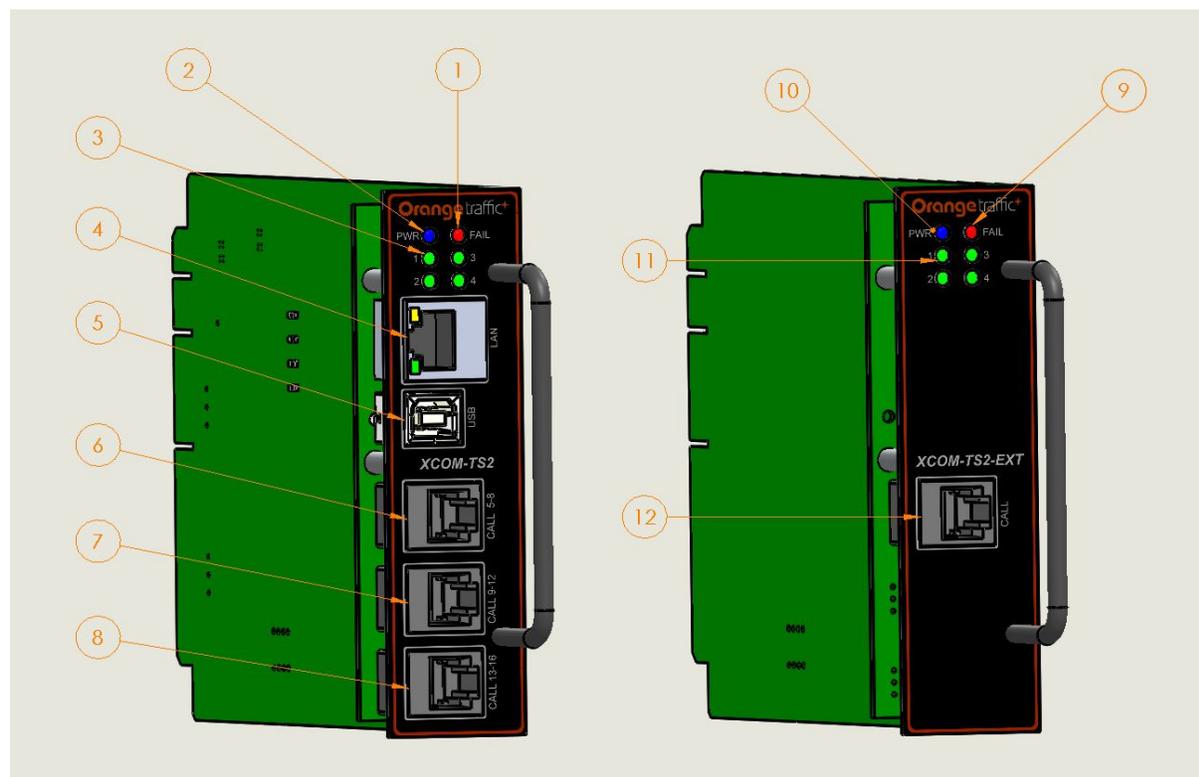
The XCom-TS2 allows:

- interfacing up to 6 XCam's to a traffic controller
- 3 connection options to a traffic controller:
- 24 solid state relays¹, inc. LED status for all connected XCam's
- Three RJ-11 connectors to interface to up to three (3) XCOM-TS2-EXT boards with four (4) outputs each for a total of 4 outputs on the XCOM-TS2, and 12 Outputs on XCOM-TS2-EXT, for a total of 16 outputs to the controller
- Serial RS-232 (Citilog standard SDK or 3rd party protocol upon request)
- Ethernet (Citilog standard SDK or 3rd party protocol upon request)
- 1 solid state relay dedicated to Fail/Safe + LED status (not activated on XCOM-TS2)
- Connection to a maintenance & configuration computer over Ethernet or USB
- Remote access for configuration, maintenance and monitoring through Ethernet connectivity
- Open SDK for 3rd party applications using the XCam traffic data



1.2. CABLING OF THE XCOM

Following shows the pin-out information of the XCOM. The information is included for reference only, as the XCOM-TS2 and XCOM-TS2-EXT boards do not require individual wiring of cameras on the board. Please refer to the additional below diagram for wiring the boards and the cameras. The supply shall be managed according to the number of XCam(s) connected to the XCom and the voltage drop induced by wires resistance. The voltage drop will be a function of the chosen wire length and wire gauge (AWG).



| | |
|---|--|
| 1 | LED associated with global fail-safe digital output See section Global Failsafe Status Output – (Item 3) for behavior description |
| 2 | XCOM-TS2 Power Status LED |
| 3 | LEDs associated with Call outputs status |
| 4 | Ethernet |
| 5 | USB Type B (maintenance and configuration) |
| 6 | Detection Calls 5-8 and Failsafe to XCOM-TS2-EXT |
| 7 | Detection Calls 9-12 and Failsafe to XCOM-TS2-EXT |

| | |
|----|--|
| 8 | Detection Calls 13-16 and Failsafe to XCOM-TS2-EXT |
| 9 | LED associated with global fail-safe digital output See section Global Failsafe Status Output – (Item 3) for behavior description |
| 10 | XCOM-TS2-Ext Power Status LED |
| 11 | LEDs associated with call outputs status |
| 12 | Detection Calls and Failsafe from XCOM-TS2 |

The power supply shall ensure at each XCam input:

- 12-24 AC/DC
- Power Consumption: 3.2W

Power characteristics of the XCom are:

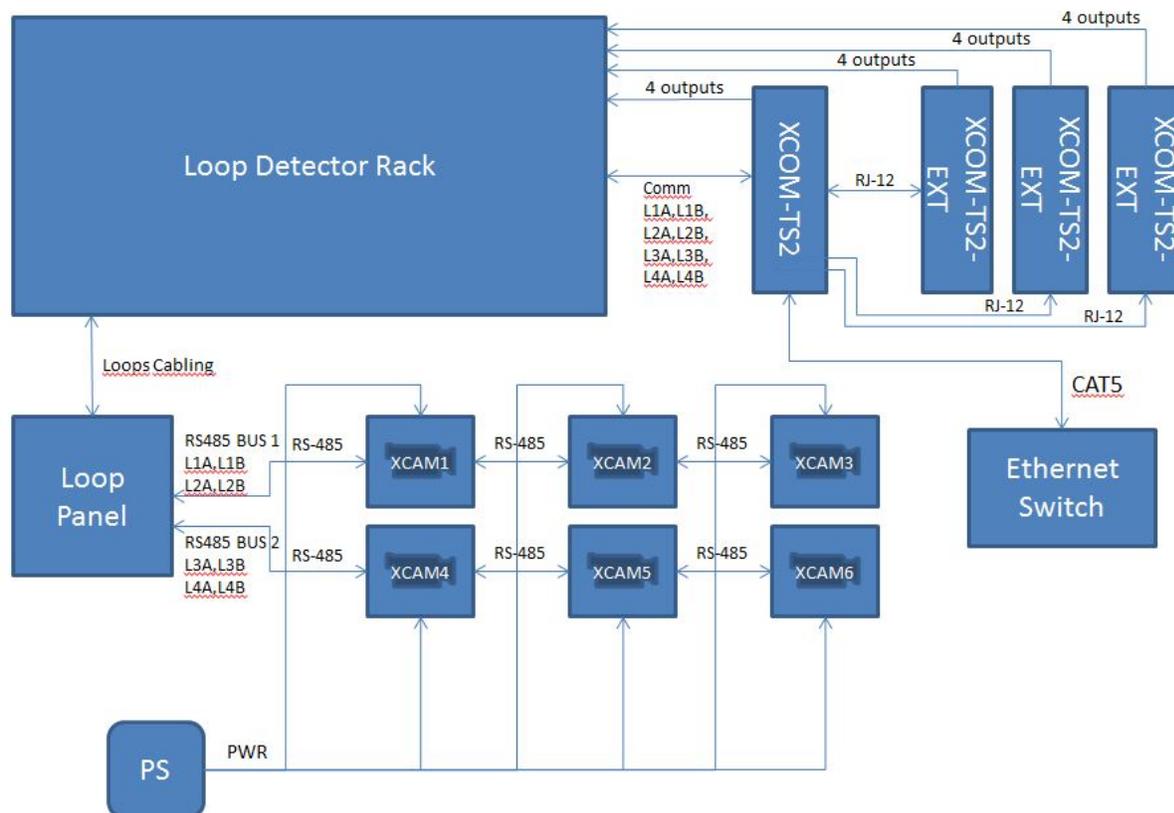
- 12-24 AC/DC
- Power Consumption: 5W

For majority of applications, it is recommended to use a **regulated power supply** of 24V AC/DC with a minimal power rating of 30W.

Two different modes are available:

- USB
- Ethernet

Wiring the XCOM-TS2 system



1.3. XCOM-TS2 PIN ASSIGNMENT

| PIN | FUNCTION | PIN | FUNCTION |
|-----|--------------------|-----|------------------------|
| 1 | RESERVED | A | Logic Ground |
| 2 | RESERVED | B | Unit DC Supply |
| 3 | RESERVED | C | RESERVED |
| 4 | L1A | D | L1A |
| 5 | L1B | E | L1B |
| 6 | RESERVED | F | DO1 (CALL 1) |
| 7 | FAILSAFE (1 FAULT) | H | DO1 Reference (Common) |
| 8 | L2A | J | L2A |
| 9 | L2B | K | L2B |
| 10 | RESERVED | L | EARTH |
| 11 | RESERVED | M | RESERVED |
| 12 | RESERVED | N | RESERVED |
| 13 | L3A | P | L3A |

| | | | |
|-----------|--------------------|----------|------------------------|
| 14 | L3B | R | L3B |
| 15 | RESERVED | S | DO3 (CALL 3) |
| 16 | FAILSAFE (3 FAULT) | T | DO3 Reference (Common) |
| 17 | L4A | U | L4A |
| 18 | L4B | V | L4B |
| 19 | RESERVED | W | DO2 (CALL 2) |
| 20 | FAILSAFE (2 FAULT) | X | DO2 Reference (Common) |
| 21 | RESERVED | Y | DO4 (CALL 4) |
| 22 | FAILSAFE (4 FAULT) | Z | DO4 Reference (Common) |

1.4. XCOM-TS2-EXT PIN ASSIGNMENT

| PIN | FUNCTION | PIN | FUNCTION |
|------------|--------------------------------------|------------|--|
| 1 | RESERVED | A | Logic Ground |
| 2 | RESERVED | B | RESERVED |
| 3 | RESERVED | C | RESERVED |
| 4 | RESERVED | D | RESERVED |
| 5 | RESERVED | E | RESERVED |
| 6 | RESERVED | F | DO5/DO9/DO13 (CALL 5/CALL 9/CALL 13) |
| 7 | FAILSAFE (5 FAULT/9 FAULT/13 FAULT) | H | RESERVED |
| 8 | RESERVED | J | RESERVED |
| 9 | RESERVED | K | RESERVED |
| 10 | RESERVED | L | EARTH |
| 11 | RESERVED | M | RESERVED |
| 12 | RESERVED | N | RESERVED |
| 13 | RESERVED | P | RESERVED |
| 14 | RESERVED | R | RESERVED |
| 15 | RESERVED | S | DO7/DO11/DO15 (CALL 7/CALL 11/CALL 15) |
| 16 | FAILSAFE (7 FAULT/11 FAULT/15 FAULT) | T | RESERVED |
| 17 | RESERVED | U | RESERVED |
| 18 | RESERVED | V | RESERVED |
| 19 | RESERVED | W | DO6/DO10/DO14 (CALL 6/CALL 10/CALL 14) |
| 20 | FAILSAFE (6 FAULT/10 FAULT/14 FAULT) | X | RESERVED |
| 21 | RESERVED | Y | DO8/DO12/DO16 (CALL 8/CALL 12/CALL 16) |
| 22 | FAILSAFE (8 FAULT/12 FAULT/16 FAULT) | Z | RESERVED |

| | | |
|--------|--|--|
| FAULT) | | |
|--------|--|--|

1.5. DIPSWITCH CONFIGURATION (SW1)

It is possible to decide whether the loop input channels are used as traditional loop inputs or as RS485 communication to connect XCAM cameras.

| DIP # | OFF | ON |
|-------|--------------------------|--|
| 1 | L1A used as a loop input | L1A used as D+ for RS485 BUS 1 |
| 2 | L1B used as a loop input | L1B used as D- for RS485 BUS 1 |
| 3 | L2A used as a loop input | L2A used as D0 (Virtual GND) for RS485 BUS 1 |
| 4 | L2B used as a loop input | L2B used as D0 (Virtual GND) for RS485 BUS 1 |
| 5 | L3A used as a loop input | L3A used as D+ for RS485 BUS 2 |
| 6 | L3B used as a loop input | L3B used as D- for RS485 BUS 2 |
| 7 | L4A used as a loop input | L4A used as D0 (Virtual GND) for RS485 BUS 2 |
| 8 | L4B used as a loop input | L4B used as D0 (Virtual GND) for RS485 BUS 2 |

