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TCL TwinSync card now supported

The TCL TwinSync card is now supported by Global System Manager V8.1 (BOS), Global System Manager V8.1 (MS-DOS and Windows) and Global System Manager (Novell NetWare). The TwinSync card is a direct replacement for the Hyper/MX card and supports the same protocols and MX Remote Node Controllers as the Hyper/MX (see section 3 of Hardware Factsheet Number 1). However, the following points should be noted:-

- The +J5NMXP (+JWNMXP) controller must be variant V4.3, or later (i.e. the TCL PCCSYNC module must be V5.2x, or later);

- The two RJ-45 connectors on the TwinSync card are NOT used;

- The "Y" distribution cable (TCL part number 9503) has been replaced by a 4-way cable (TCL part number 9528). The output end of the 4-way cable includes 2 15-way male D-type connectors and 2 25-way male D-type connectors:-

Line-1	15-pin	RS-422/RS-485	equivalent to old P1
Line-2	25-pin	RS-232	equivalent to old P1
Line-3	15-pin	RS-422/RS-485	equivalent to old P2
Line-4	25-pin	RS-232	equivalent to old P2

  If line-1 is used for RS-422/RS-485 then line-2 can't be used for RS-232, and vice versa. If line-3 is used for RS-422/RS-485 then line-4 can't be used for RS-232, and vice versa.

- The Memory Address select switches on the TwinSync card are different from those on the HyperMX. Switch bank SW2 on the HyperMX is effectively replaced by switch bank SW1 on the TwinSync. Switches SW1-1 to SW1-7 on the TwinSync card correspond to address lines A13 to A19, respectively. **THIS CONVENTION IS DIFFERENT FROM THE HYPER/MX CARD.** A bit is set by being switched to the OFF (down) position; a bit is clear by being switched to the ON (up) position. SW1-8 must always be set in the OFF position. The following addresses are available:-

Address range	SW1-1	SW1-2	SW1-3	SW1-4	SW1-5	SW1-6	SW1-7	SW1-8
C0000 – C1FFF	ON	ON	ON	ON	ON	OFF	OFF	OFF
C2000 – C3FFF	OFF	ON	ON	ON	ON	OFF	OFF	OFF
C4000 – C5FFF	ON	OFF	ON	ON	ON	OFF	OFF	OFF
C6000 – C7FFF	OFF	OFF	ON	ON	ON	OFF	OFF	OFF
C8000 – C9FFF	ON	ON	OFF	ON	ON	OFF	OFF	OFF
CA000 – CBFFF	OFF	ON	OFF	ON	ON	OFF	OFF	OFF
CC000 – CDFFF	ON	OFF	OFF	ON	ON	OFF	OFF	OFF
CE000 – CFFFF	OFF	OFF	OFF	ON	ON	OFF	OFF	OFF
D0000 – D1FFF	ON	ON	ON	OFF	ON	OFF	OFF	OFF
D2000 – D3FFF	OFF	ON	ON	OFF	ON	OFF	OFF	OFF
D4000 – D5FFF	ON	OFF	ON	OFF	ON	OFF	OFF	OFF
D6000 – D7FFF	OFF	OFF	ON	OFF	ON	OFF	OFF	OFF
D8000 – D9FFF	ON	ON	OFF	OFF	ON	OFF	OFF	OFF
DA000 – DBFFF	OFF	ON	OFF	OFF	ON	OFF	OFF	OFF
DC000 – DDFFF	ON	OFF	OFF	OFF	ON	OFF	OFF	OFF
DE000 – DFFFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF
E0000 – E1FFF	ON	ON	ON	ON	OFF	OFF	OFF	OFF
E2000 – E3FFF	OFF	ON	ON	ON	OFF	OFF	OFF	OFF
E4000 – E5FFF	ON	OFF	ON	ON	OFF	OFF	OFF	OFF
E6000 – E7FFF	OFF	OFF	ON	ON	OFF	OFF	OFF	OFF
E8000 – E9FFF	ON	ON	OFF	ON	OFF	OFF	OFF	OFF
EA000 – EBFFF	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF
EC000 – EDFFF	ON	OFF	OFF	ON	OFF	OFF	OFF	OFF
EE000 – EFFFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF

There is no equivalent of HyperMX switch bank SW1 on the TwinSync card.

- The Interrupt Level select jumpers on the TwinSync card are identical to the Interrupt Level select jumpers on the HyperMX card (as documented in section 3.3.1 of Hardware Factsheet Number 1).

- To select RS485 operation on line-1 the LK10 and LK11 jumpers must be set as follows:-

LK10-A Linked
LK10-B Open
LK10-C Open
LK10-D Linked
LK10-E Open
LK10-F Linked
LK10-G Linked
LK10-H Open
LK11-A Linked
LK11-B Linked

To select RS485 operation on line-2 the LK12 and LK13 jumpers must be set as follows:-

LK12-A	Linked
LK12-B	Open
LK12-C	Open
LK12-D	Linked
LK12-E	Open
LK12-F	Linked
LK12-G	Linked
LK12-H	Open
LK13-A	Linked
LK13-B	Linked

These jumpers only affect the RS422/RS485 line drivers and have no effect in RS232 mode.

- The Global Configurator options for the TwinSync card are identical to those for the HyperMX card (as documented in sections 3.4.1 and 3.4.2 of Hardware Factsheet Number 1).