Technical Service Bulletin

Ascom® Wireless Solutions Inc.

Product: DCT1900 Board Positions
Purpose: To communicate the recommended board positions to facilitate proper framing synchronization.
Date: February 18, 2005

Recommended Board Positions for All Configurations

The use of the recommended board position is encouraged to ensure that there is proper backplane signal distribution. Careful board positioning will also help to prevent crossing of cables and to ensure sufficient cable length. For power limitations, refer to Sec 4, Ch 2 in the DCT1900 Technical Product Manual (TPM). Not all slots will always be allowed due to power limitation.

Modular Cabinet Powering Restrictions

Although the Modular Cabinet has space for 9 boards, not all board combinations are allowed due to power limitations of the DC/DC converter on the backplane. This converter is specified as follows:

+5 V	can supply 40 W at maximum
+12 V	can supply 12 W at maximum
-12 V	can supply 12 W at maximum
Total	must be <40 W

Table 1 shows the power consumption per board type. From this table, it can be calculated if a configuration matches the power requirements. The values given to the ±12V of the LTU indicates the power consumption in the case where all LTU circuits are off hooks.

Note:

Due to a minimum required power consumption from the DC/DC converter, at least two boards must be present in each cabinet.

Board Type	5 V	+12 V	-12 V
CPU-2 REX-BRD9032	6 W		
CPU REX-BRD0004	9.6 W	1 W	1 W
SPU-S REX-BRD0017	3.55 W		
SLU REX-BRD0015	6.9 W		
CLU-S REX-BRD0016	3.45 W		
CLU REX-BRD0014	3.6 W		
DTU-E1,CCS/CAS REX-BRD0002	4.5 W		
DTU-T1,CAS REX-BRD0021	6 W		
DTU- T1 CCS REX-BRD0021	6 W		
LTU REX-BRD0007	1.5 W	.75 W	.75 W
LTU-2 REX-BRD0007	2.5 W		
DLU REX-BRD0023	6.5 W		1.2 W

Table 1 – Power Consumption Per Board Type

Rev. A

Technical Service Bulletin

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CPU Board Positions
The CPU will always reside in Cabinet 1 Slot 24. This is the first slot on the left hand side of the cabinet.

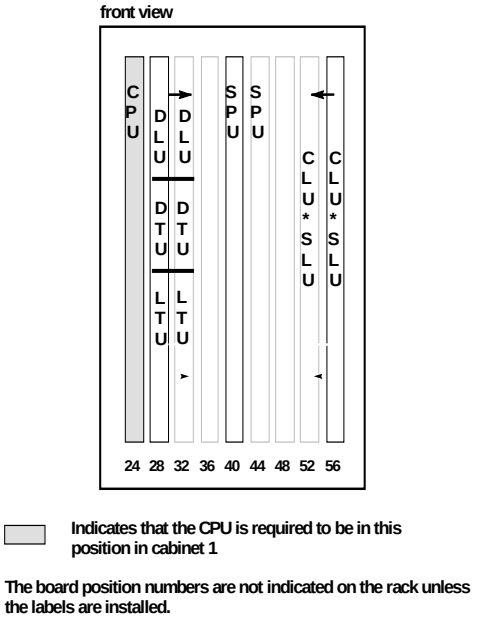

Figure 1 – Recommended Board Positions

DLU/DTU/LTU
Line interface cards should be positioned adjacent to the CPU to ensure proper framing synchronization. However, not all board combinations are allowed due to power limitations (Reference Sec 4, Ch 2). When a multi-cabinet configuration is needed refer to Sec 5, Ch 3 for cabinet positions. All addition line interface cards that are installed in cabinets 2-4 need to be placed in the cabinets as close as physically possible to the CPU but in accordance with power limitations. Figure 2 shows an example of a four cabinet system (Cabinet positions 4-3-1-2) where in cabinet 2 all interface cards are to the left and in cabinet 3 and 4 all interface cards are to the right.

Rev. A

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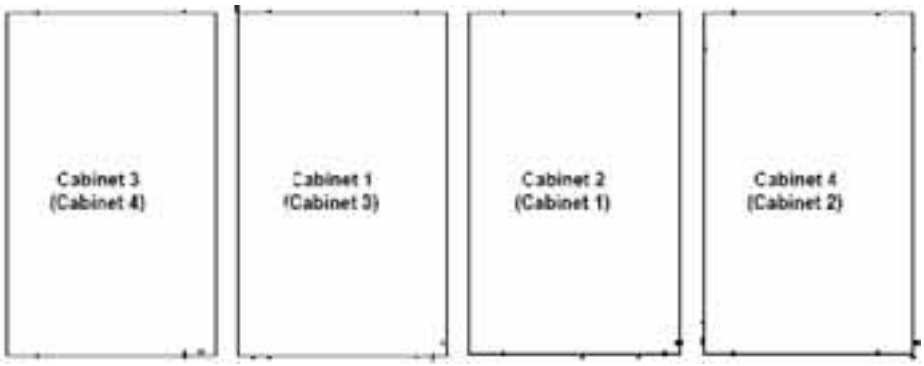

Figure 2 – Four Cabinet system

CLUS/SLUS
CLUs & SLUs are generally placed on the right hand side of the cabinet. In this position, CLU/MDF cables do not influence the accessibility of the MCCB.

SPU
SPUs are generally placed in the center of the cabinet.

Notes
- *Take cables positions into consideration. They need to be properly shielded to the cabinet.*
- *There needs to be a minimum of two boards in a cabinet due to a minimum configuration.*

Additional Information

References can be found in the TPM R7 (Section 4, Chapter 2 and Section, 5 Chapter 3)

If you have any questions about this bulletin, please contact Ascom Technical Services at 1-877-712-7266 option 3.

Rev. A