



Prisma II HDTx in the Prisma II Chassis Not Turning On Technical Bulletin

Overview

Purpose

The purpose of this document is to inform Prisma II™ High Density Transmitter (HDTx) users of a possible issue about the last HDTx in the Prisma II chassis not turning on.

Audience

This document is for internal use by Cisco employees only. This document is written for system engineers and managers, who are responsible for operating and/or maintaining the Prisma II equipment.

Situation

Cisco has received customer comments regarding issues that the last HDTx would not turn on after 16 or more units were installed in a Prisma II chassis. An analysis was conducted and the problem appeared to be associated with the chassis ID and soft start IC.

It was determined that the problem occurred only when the Chassis ID was set to 00 or 01 and the HDTx was inserted into an active rack. The problem probably will occur with the chassis ID set to any address that contains only one or two "1" when represented in BCD such as 01, 02, 03, 04, 05, 06, 08, 10, 20, 40, and 80. Refer to the Group 2 table in **Prisma II Chassis ID and Addresses Tables**. When the Chassis ID is set to these numbers, all or all but one or two of the Chassis ID lines on the backplane are pulled to 5 volts by the pull up resistors on the Chassis ID select lines in the installed modules. When a new module is plugged into the rack, the pull up resistors in the new module source the 5 volts from the Chassis ID lines on to the new module's 5 volt supply bus which prevents the soft start IC from starting.

Customer Exposure

A few customers may experience this kind of issue if they have units manufactured before September 2005 (J05) and with serial number beginning with “MM”. This problem will not happen when a small number of modules are plugged into the rack because the number of pull up resistor in parallel is smaller resulting in less current being supplied to the Chassis ID pins. The problem will not happen for Chassis ID binary addresses with three or more “1”s because the “1” bits form a voltage divider that lowers the voltage impressed on the new modules internal 5 volt bus below the threshold where the soft start IC is prevented from starting.

Solution

Technical service needs to advise the customers to change to Chassis IDs with three or more binary codes, such as 07, 13, 15~17, etc. in case they see the last transmitter not turning ON. Refer to the Group 1 table in **Prisma II Chassis ID and Addresses Tables**. The chassis ID change will not affect any functionality or performance of the transmitters.

Prisma II Chassis ID and Addresses Tables

Group 1: OK to Use				Group 2: NOT to Use	
Chassis ID	# of "1"s in Binary Address	Chassis ID	# of "1"s in Binary Address	Chassis ID	# of "1"s in Binary Address
07	3	61	3	00	0
13	3	62	3	01	1
15	3	63	4	02	1
16	3	64	3	03	2
17	4	65	4	04	1
19	3	66	4	05	2
23	3	67	5	06	2
25	3	68	3	08	1
26	3	69	4	09	2
27	4	70	3	10	1
29	3	71	4	11	2
31	3	72	4	12	2
32	3	73	5	14	2
33	4	74	4	18	2
34	3	75	5	20	1
35	4	76	5	21	2
36	4	77	6	22	2
37	5	78	4	24	2
38	3	79	5	28	2
39	4	83	3	30	2
43	3	85	3	40	1
45	3	86	3	41	2
46	3	87	4	42	2
47	4	89	3	44	2
49	3	91	3	48	2
51	3	92	3	50	2

Prisma II Chassis ID and Addresses Tables

Group 1: OK to Use			
Chassis ID	# of "1"s in Binary Address	Chassis ID	# of "1"s in Binary Address
52	3	93	4
53	4	94	3
54	3	95	4
55	4	96	4
56	4	97	5
57	5	98	3
58	3	99	4
59	4		

Group 2: NOT to Use	
Chassis ID	# of "1"s in Binary Address
60	2
80	1
81	2
82	2
84	2
88	2
90	2

For Information

If You Have Questions

If you have technical questions, call Cisco Services for assistance. Follow the menu options to speak with a service engineer.



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