

BOC Test Points

Introduction

These notes support the use of the 'scope test points provided on Series BOCs that allow the TX streams (Control Data) and the RX streams (Received Data) to be observed.

TX Test Points:

There are 2 TX test points for each of the TX PlugIn sites. They are attached to the first 2 streams of that block, ie.: stream 0,1, 12,13 24,25, 36,37. The designers apologise to the Pixel community as these are not of any obvious use to them. The relative positions of the test points for the bottom 2 TX PlugIn sites are shown in **Figure 1**

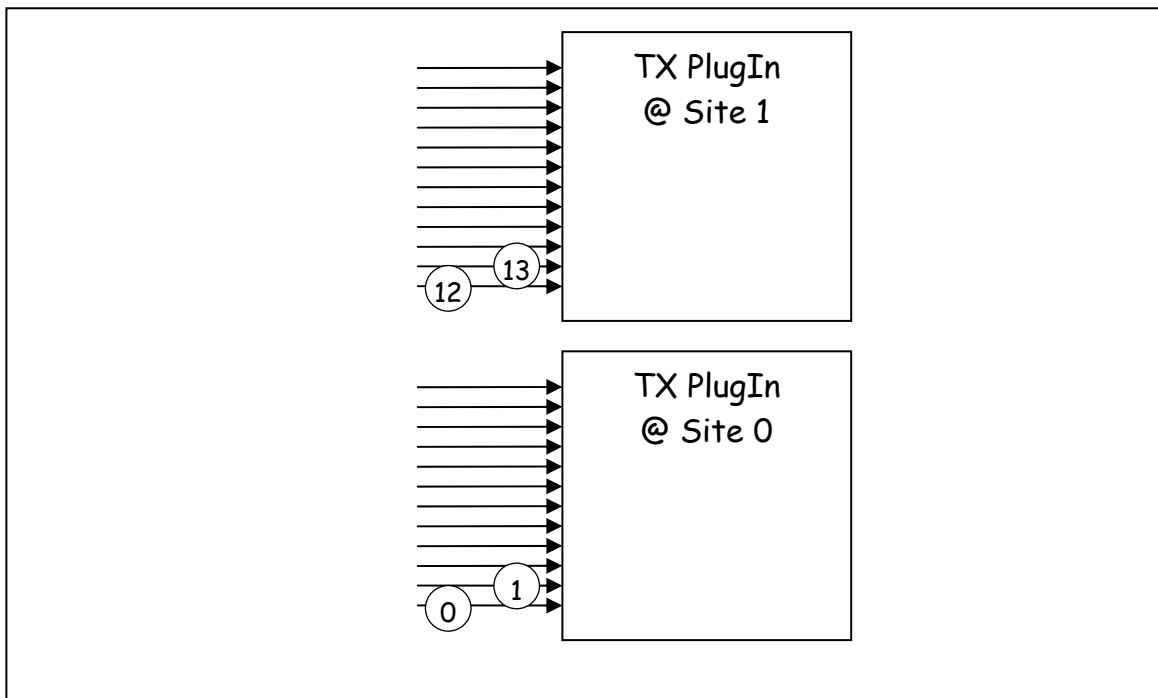


Figure 1 - TX Data Test Points (for bottom 2 sites)

RX Test Points:

There are 4 RX test points for each of the RX CPLDs. Each CPLD handles 24 RX Data streams. There is a Hex Switch on the BOC that determines which signals are seen at these test points: the one switch serves all 4 CPLDs. **Table 1** shows which data streams are available for each setting of this switch. **Figure 2** shows the location of the RX Test Points.

Note that the selection is determined by firmware, and may be changed in future firmware releases.

The i/p data is a buffered copy of what arrives from the stream delay chips. The o/p data is a copy of what is sent to the data buffers to be passed to the RODs. Thus the o/p data will change with the RX Data Mode setting.

....ooOoo....

		Test Point			
		TP D	TP C	TP B	TP A
RX Test Point Selector Setting	0	X	X	X	X
	1	o/p N + 1	o/p N + 0	i/p N + 1	i/p N + 0
	2	o/p N + 3	o/p N + 2	i/p N + 3	i/p N + 2
	3	o/p N + 5	o/p N + 4	i/p N + 5	i/p N + 4
	4	o/p N + 7	o/p N + 6	i/p N + 7	i/p N + 6
	5	o/p N + 9	o/p N + 8	i/p N + 9	i/p N + 8
	6	o/p N + 11	o/p N + 10	i/p N + 11	i/p N + 10
	7	o/p N + 13	o/p N + 12	i/p N + 13	i/p N + 12
	8	o/p N + 15	o/p N + 14	i/p N + 15	i/p N + 14
	9	o/p N + 17	o/p N + 16	i/p N + 17	i/p N + 16
	A	o/p N + 19	o/p N + 18	i/p N + 19	i/p N + 18
	B	o/p N + 21	o/p N + 20	i/p N + 21	i/p N + 20
	C	o/p N + 23	o/p N + 22	i/p N + 23	i/p N + 22
	D	X	X	X	X
	E	X	X	X	X
	F	X	X	X	X

- Notes: 1) For CPLD [0,1,2,3] N = [0,24,48,72]
 2) These selections may be changed by firmware modifications

Table 1 - RX Test Point Selection

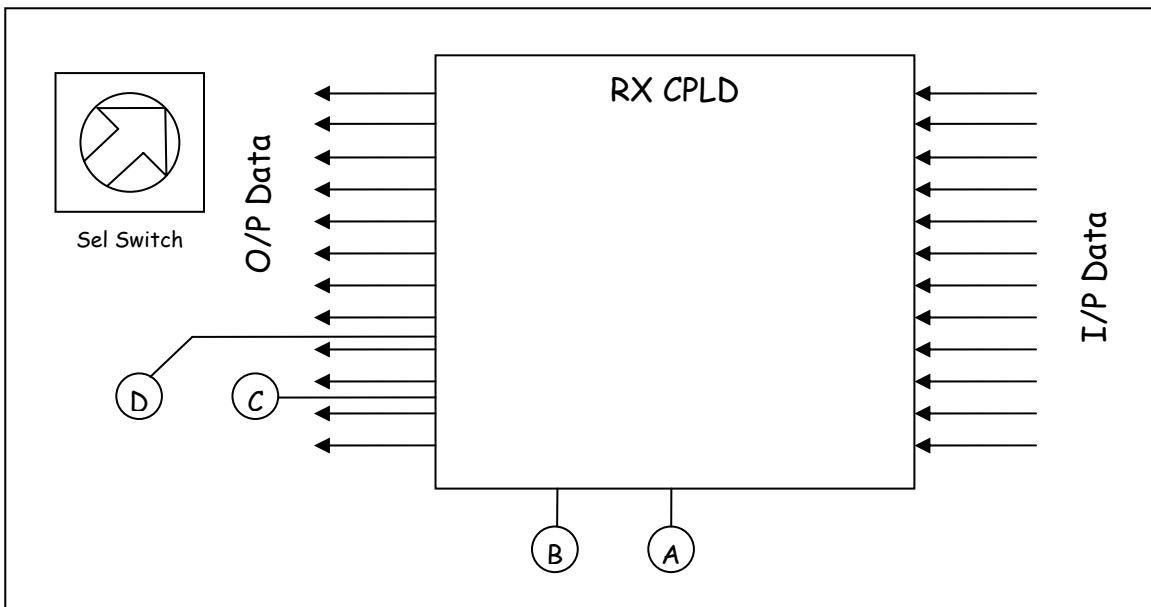


Figure 2 - RX Data Test Point Location