



BC362 Series

Fibre video interfaces

Additional Information for versions:
BC362T iss 4; BC362R iss 5

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E&OE August 2016

Introduction

BC362 Series card upgrades.

This is an addendum to the document: BC362-OperationGuide-v1.pdf
to cover new versions of the two card variants with the following PCB issue numbers:

BC362T iss 4
BC362R iss 5

These revisions introduced the following new features:

- The ability to disable the red LED display on an unused channel
- The ability to accept either MSA or non-MSA SFPs
- Remote monitoring of the video clock frequency detected

System block diagram

The block diagrams shown on page 7 of the original BC362-OperationGuide-v1.pdf
are still substantially valid for the upgraded cards, except that there is no longer the
option of a non-reclocking mode.

Configuration and setup options

In the original BC362-OperationGuide-v1.pdf the table on page 8 and the pcb layout with links on page 9 apply to the following circuit board version numbers:

BC362T iss 2 only

BC362R iss 3 only

A revised table and pcb layout for the newer cards is given below and on the next page

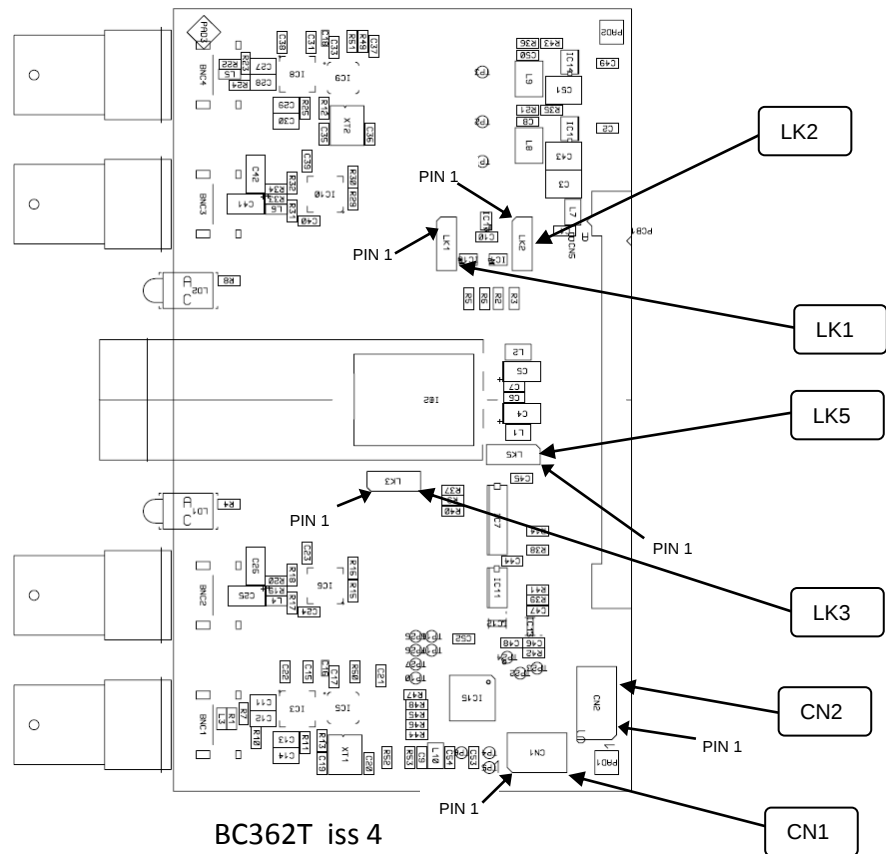
In order to provide the reporting of video clock frequencies (see "External Monitoring" section below) on the new cards, a different re-clocking chip has been used which no longer has the 'disable reclocking' option. However, new links have been added to allow for MSA SFPs, and the ability to disable the red LED error warning if a channel is not being used.

Here are the configuration settings for the upgraded cards.

Jumper	Setting	BC362T iss 4	BC362R iss 5
LK1	Pins 1, 2 linked	S/L LED indicates low signal level (Ch. A)	When SFP is data type (MSA)
	Pins 2, 3 linked	S/L LED indicates data lock error (Ch. A)	When SFP is video type (non-MSA)
LK2	Pins 1, 2 linked	S/L LED indicates low signal level (Ch. B)	
	Pins 2, 3 linked	S/L LED indicates data lock error (Ch. B)	
LK3	Pins 1, 2 linked	When SFP is data type (MSA)	(or no link) – eeprom protected
	Pins 2, 3 linked	When SFP is video type (non-MSA)	For factory use only
LK5	Pins 1, 2 linked	(or no link) – eeprom protected	
	Pins 2, 3 linked	For factory use only	
CN1		For factory use only	For factory use only
CN2	Pins 1, 2 linked	Enable error LEDs (Ch. A)	Enable error LEDs (Ch. A)
	Pins 1, 2 free	Disable error LEDs (Ch. A)	Disable error LEDs (Ch. A)
CN2	Pins 3, 4 linked	Enable error LEDs (Ch. B)	Enable error LEDs (Ch. B)
	Pins 3, 4 free	Disable error LEDs (Ch. B)	Disable error LEDs (Ch. B)
CN2	Pins 5, 6	Not used - leave free	Not used - leave free
CN2	Pins 7, 8	Not used - leave free	Not used - leave free

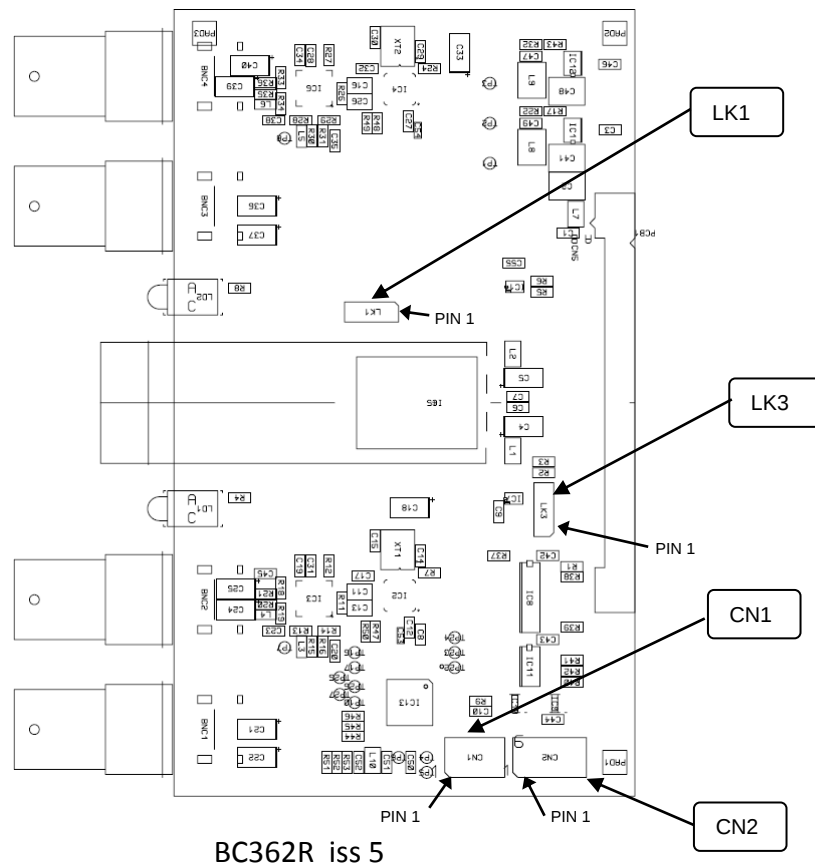
Factory default settings are shown in Bold.

Note that the BC362R has no LK2 or LK5, and that neither card has an LK4



8	7
6	5
4	3
2	1

CN2 pin layout
(both cards)



The diagrams above show the locations of the PCB jumpers. Note that on the PCB itself, Pin 1 of each jumper is indicated by a bevelled corner on the silkscreen outline around the header, and a square solder pad on the rear of the card.

External Monitoring

Remote monitoring via webpages:

When mounted in a BC100 or BC160 frame, with an optional BM102 SNMP/ethernet module fitted, webpages can be accessed to display a lot of information on the status of the cards in the frame, such as their card type, serial number, SFP part number, and dynamic information such as the ch A and B signal status and SFP optical powers.

The new versions of the BC362 cards provide extra 'card-specific parameters' giving the clock frequencies of the video signals received. The parameter descriptions and possible values are listed in the following table. Both card types give the same information.

BC362T/R specific parameters

Description	Value	Meaning
CH A or CH B	125 Mbps	
	270 Mbps	
	1.4835 Gbps	
	1.485 Gbps	
	2.967 Gbps	
	2.970 Gbps	
	No Lock	Data present but not at a recognised data rate.
	No Signal	No Data or Signal detected.

Please note that to be able to access this information, it may be necessary to upgrade the BM102 module in the frame:

The "Firmware Date:" should be Oct 30 2015 or later, and
the "Image Date:" should be Dec 16 2015 or later.

Please contact Bluebell if you need an upgrade.

Remote monitoring via SNMP:

This also requires a frame with a BM102 module as described for "Remote monitoring via webpages" just above. You should also get from Bluebell an snmp 'mib' file corresponding to the BM102 Firmware. The extra information provided by the upgraded BC362 cards via SNMP is the same as that provided on the webpages, and is related to the mib OID names as shown in the following table.

BC362T/R specific parameters

mib name	Value	Meaning
cspCount	2	Number of Card specific Parameters for this card
cspDesc1	CH A	Description of Card specific Parameter #1
cspDesc2	CH B	Description of Card specific Parameter #2
cspValue1		CH A clock frequency value from table above
cspValue2		CH B clock frequency value from table above