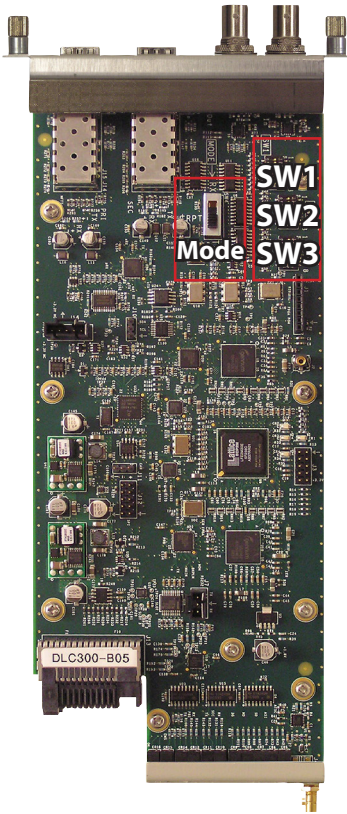


DL4000 VIDEO TRANSPORT SYSTEM MODULE

DLC300 Quick Start Guide



Artel ships the DLC300 configured as follows:

- Transmitter mode selected
- All signal types allowed
- Electrical input set to BNC
- Standby signal set to Artel non-video standby signal
- SDI Standby set to 525 line (SD-SDI), 59.94 fps (HD/3G)
- Forced bypass is disabled (when forced bypass is enabled, all signal classification, processing, and relocking is bypassed)
- SDI processing set to No EG34 dithering
- ATSC to ASI conversion is disabled
- SFP alarms are enabled
- Optical reversion is disabled
- Video loss alarm is disabled
- EMS override is enabled (DL Manager can change the DLC300 configuration)

Mode Switch Functions

RX	Receiver Mode
RPT	Repeater Mode (O to O)
TX	Transmitter Mode

Configuration Switch Functions

SW1	Controls the video rate and forced bypass function settings
SW2	Controls the input source (BNC IN or backplane connector) for transmitter mode and operation of the standby video pattern generator
SW3	Controls the following functions: SDI processing, ATSC to ASI video conversion, SFP alarms, optical reversion, video loss alarm, and EMS enable setting

DIP Switch Configurations

SW1 CONFIGURATION			
	Function	*Off	On
S1	3G SDI	Disabled	Enabled
S2	HD-SDI	Disabled	Enabled
S3	SD-SDI	Disabled	Enabled
S4	DVB ASI	Disabled	Enabled
S5	ATSC	Disabled	Enabled
S6	DV238	Disabled	Enabled
S7	Reserved	-	Must be On
S8	All Others	Disabled	Enabled

*All SW1 Switches off for bypass mode
Factory Default: All On

SW2 CONFIGURATION			
S1	S2	S3	Video Source
On	On	On	BNC In
Off	Off	Off	Backplane 1
Off	On	Off	Backplane 2
Off	Off	On	Backplane 3
Off	On	On	Backplane 4
On	Off	Off	Reserved
On	Off	On	Reserved
On	On	Off	Reserved

Factory Default: All On

S4	S5	Standby Type	
On	On	ARTEL*	
Off	On	3G 1080p	SDI Grey
On	Off	SD-SDI	
Off	Off	HD 1080i	

*Non-video keep-alive signal

	Function	Off	On
S6	Standby Format	625 Line (SD-SDI)	525 Line (SD-SDI)
		50fps (HD/3G)	59.94fps (HD/3G)
S7	Reserved	-	Must be On
S8	Reserved	-	Must be On

Factory Default: All On

SW3 CONFIGURATION			
	Function	Off	On
S1	Reserved	-	Must be On
S2	EG34 Dither	Enabled	Disabled
S3	ATSC-ASI Conversion	Enabled	Disabled
S4	Reserved	-	Must be On
S5	SFP Alarm	Disabled	Enabled
S6	Optical Reversion	Enabled	Disabled
S7	Alarm On Loss of Video	Enabled	Disabled
S8	EMS Override	Local Control	Remote Control

Factory Default: All On



DLC300 Front Panel LEDs

LED	Function	Color	Description
OK	DLC300 Module Status	OFF	If power is applied to the system, an internal fault may exist
		●	Normal operation
		●	A temperature alarm is indicated if the RX LED is not flashing yellow
		●	The TX or RX LEDs may indicate the cause of the alarm. Loss of video if the video alarm is enabled. Video rate is not locked. ¹ The corresponding signal rate LED will flash red. Possible internal error
EMS	DL Manager System Status	OFF	The DLC300 module is in local mode and its configuration is controlled by the onboard configuration switches
		●	The DLC300 module is in remote mode and the configuration has been set by DL Manager. When in remote mode, the actual configuration of the module will likely not match the settings of the configuration switches and changing the configuration switches will have no effect on the module's operation
TX ²	Transmitter (PRI & SEC)	OFF	Receiver mode is selected or the corresponding PRIMARY or SECONDARY SFP is not installed
		●	Normal TX operation (input signal present)
		●	Standby operation (signal from the standby generator)
		*	No SFP is installed in either socket or an SFP TX failure exists
RX ²	Receiver Status (PRI & SEC)	OFF	Transmitter mode is selected or the corresponding PRIMARY or SECONDARY SFP is not installed
		●	Normal RX operation (input signal is present)
		●	143 Mb PRBS non-video standby signal detected
		*	Receive optical power is high
		*	Low light, loss of SFP RX signal, the PRIMARY and SECONDARY SFP sockets are both missing SFPs, or an SFP RX failure exists
3G	2.97Gb/s Status	OFF	3G signal is not detected
		●	3G signal is received or transmitted
		●	3G signal is detected and is processed ³ w/EG34 dithering
		●	3G signal is detected and blocked
		*	Video rate is unlocked ¹
HD	1.485 Gb/s SDI Signal Status	OFF	HD signal is not detected
		●	HD signal is received or transmitted
		●	HD signal is detected and is processed ³ w/EG34 dithering
		●	HD signal is detected and blocked
		*	Video rate unlocked ¹
SD	270 Mb/s SDI Signal Status	OFF	SD signal is not detected
		●	SD signal is received or transmitted
		●	SD signal is detected and is processed ³ w/EG34 dithering
		●	SD signal is detected and blocked
		*	Video rate unlocked ¹
ASI	ASI Signal Status	OFF	ASI signal is not detected
		●	ASI signal is being received or transmitted
		●	ASI signal is detected and is processed ³ w/EG34 dithering
		●	ASI signal is detected and blocked
		*	Video rate unlocked ¹
ATSC	SMPTE 310 19.39 Mb/s ATSC Signal Status	OFF	SMPTE 310 19.39 Mb/s ATSC signal is not detected
		●	SMPTE 310 19.39 Mb/s ATSC signal is received or transmitted
		●	SMPTE 310 19.39 Mb/s ATSC signal is detected and is being converted to ASI
		●	SMPTE 310 19.39 Mb/s ATSC signal is detected and blocked

Footnotes

1. A video rate unlocked condition usually indicates that the input signal rate is outside the standard rate requirements. The input signal rate requirements are as follows:
 - SDI/ASI rates must be 270 Mb/s ± 100 ppm
 - HD SDI rate must be 1.485 Mb/s or 1.485/1.001 Mb/s ± 50 ppm
 - 3G SDI rate must be 2.97 Gb/s or 2.97/1.001 Gb/s ± 50 ppm
 If the signal cannot be held within these requirements, try setting the DLC300 to bypass mode
2. When the DLC300 is in repeater mode, the TX and RX status LEDs are active to represent the simultaneous receive and transmit operations occurring
3. Depending on the operating mode of the DLC300, it processes the signal as follows:
 - Transmitter mode—Dithered
 - Receiver mode—Undithered
 - Repeater mode—The optical transmit signal is an unmodified (but relocked) copy of the optical receive signal. The electrical BNC output and monitor output is undithered if SW3-2 is Off, otherwise these outputs are dithered.
 (The optical transmit signal is an unmodified copy of optical receive signal). If a DLC300 in receiver mode is set to undither and an undithered SDI or ASI signal is received, the signal will be output normally, without dithering.

* Flashing yellow | * Flashing Red

Install SFPs

Optical redundancy is enabled with installation of secondary SFP (as shown)

