STANDALONE 4 CHANNEL FRAME SYNCHRONIZER

Specification:

PARAMETER	DESCRIPTION
Number of channels	4 Channels.
Input Data Rate	200 Mbps per Channel.
Input Signal Level	ECL-SE /LVDS/TTL.
Input	00 Clock and Data.
Bits per Frame	6 to 16.
Words per Frame	256K (Max).
FS Code Length	128 Bits.
Reference FSC Length	Programmable 128 Bits.
Mask Pattern Length	Programmable 128 Bits.
Lock Loss Status	Programmable 1 to 14.
Bit Slip	Programmable ± 7 Bits.
Error Threshold	Programmable 0 to 15 Bits.
Frame Sync Code (FSC)	◇ Length: up to 128 bits programmable ◇ Code: Programmable.
Frame length:	Up to maximum of 16Mbits/frame, programmable.
Error allowance:	0 to 14 bits programmable.
Bit slip window:	1 to ± 14 bits programmable.
Frame sync Strategy:	Search, Check, Lock strategy, Search and Check fixed to one.
Miss in Lock:	1 to 14 frames programmable.
Differential Decoding:	Enable/disable.

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De-Randomization: Enable /Disable provision.

- *Seed Word : Programmable.*
- *Length : 11 to 16 bits programmable.*
- *Start of De-randomization : 64 to 144 bits programmable.*
- *Feedback selection : Feedback is the Ex-OR of two bits. Each of these bits can be selected from any of the 1st – MSB bit of the shift register, whose length is equal to the length of the seed word.*

LBT Stripping :

Provision is existed to strip out the Low Bit Rate Telemetry (LBT) coming in the High bit Rate Stream and give user as per RS232C interface through a 9-pin D-type connector. Baud rate 115K, No parity, one stop bit. Stripping mechanism is to look for the change in LBT address and pick up the LBT data only once at every change in address. Provision to strip more data slots for a single address slot is also available. Finally all channels LBT is available on Ethernet the following are the list of configuration parameters for LBT.

- *LBT mode*
- *LBT Blk width*
- *Start pos of LBT Blk*
- *Periodicity Cnt Width*
- *LBT Add chg bit ext*
- *No of data bit extract*
- *Start bit extract*