⧉BERTWave

/Inritsu

Supports Full Rate Output
MP2100A-052/MP2101A-052 Full Rate Clock Output Option
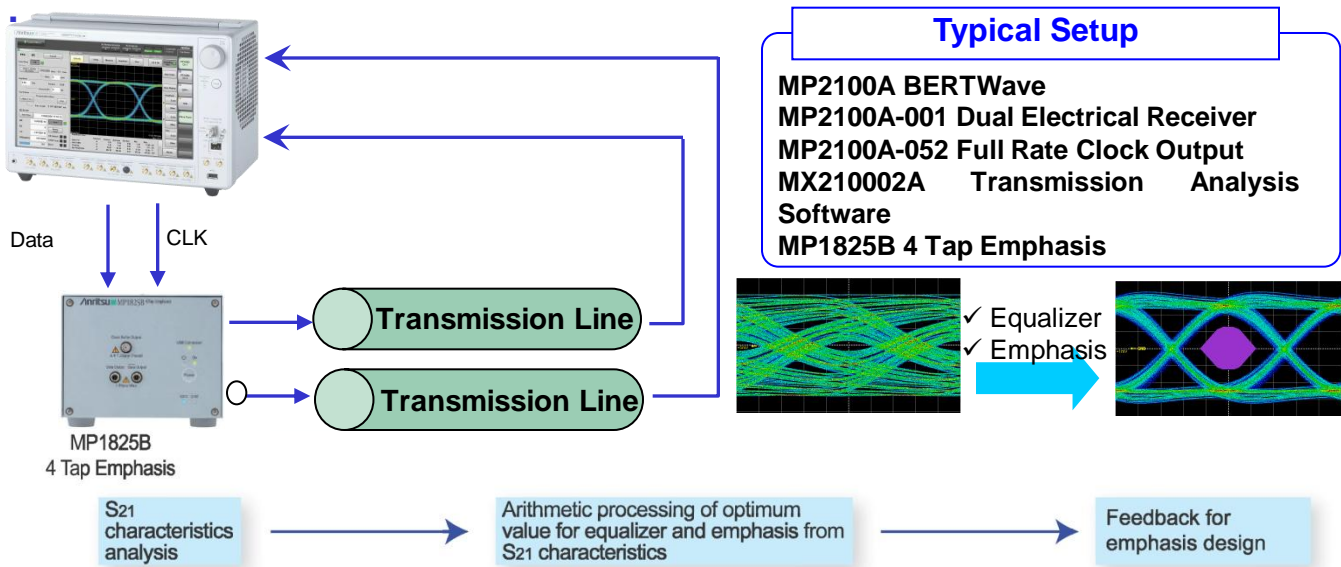
MP2100A BERTWave Series

Outline/Features

○ **Full rate clock output for bit rate**
- **Output 1/1, 1/2, 1/4, and 1/8 bit rate clocks**
- **Direct connection with DUT requiring each divided clock**

○ **Drive MP1825B 4Tap Emphasis using 1/1 Rate clock**
- **Add emphasis to Data signal and monitor using MP1825B**
- **Compute ideal emphasis and simulate using MX210002A Transmission Analysis Software**

○ **Retrofit to MP2100A/MP2101A**
- **Japan factory upgrade (Opt-152)**

Emphasis Simulation

Efficient emphasis design by combining MP2100A, MP2100A-052, MX210002A and MP1825B

Data   CLK

Transmission Line

Transmission Line

MP1825B
4 Tap Emphasis

Typical Setup

MP2100A BERTWave
MP2100A-001 Dual Electrical Receiver
MP2100A-052 Full Rate Clock Output
MX210002A Transmission Analysis Software
MP1825B 4 Tap Emphasis

✓ Equalizer
✓ Emphasis

S21 characteristics analysis → Arithmetic processing of optimum value for equalizer and emphasis from S21 characteristics → Feedback for emphasis design

Additional MP2100A-052 a full rate clock output option, it is **connectable with a MP1825B 4 Tap emphasis converter.**

Therefore, **the waveform which added the emphasis can be observed by combining BERTWave and MP1825B.**

Moreover, the emphasis of a maximum of 4 taps as well as a MP1825B 4 tap emphasis can be set up by installing MX210002A transmission analysis software in BERTWave.

Therefore, it is **analyzable using a waveform simulation** what kind of eye patterns it becomes or what kind of emphasis is required by rectifying the eye patterns which deteriorated by the loss of the transmission track by the equalizer or an emphasis.

Specifications

Operation Bit Rate	The MP2100A/01A-052/152 supports output at the following bit rates.
	With Opt-090: 8.0 to 12.5 GHz 4.0 to 6.25 GHz 2.0 to 3.125 GHz 1.0 to 1.5625 GHz **Without Opt-090:** 8.5 to 11.32 GHz 4.25 to 5.66 GHz 2.125 to 2.83 GHz 1.0625 to 1.415 GHz
Number of Outputs	1 (single end)
Amplitude	300 to 750 mVp-p
Duty	50% ±15%
Tr/Tf	30 ps (20% to 80%) typ.
Jitter (RMS)	2 ps rms typ. at 10 GHz, Sync. Clock 1/8 2 ps rms typ. at 12.5 GHz, Sync. Clock 1/8 (with Opt-090)
Connector	SMA Jack
Termination	50 Ω/AC cupled
Reference Channel	Clock output synchronization target Ch1: PPG ED (1/1 rate, 1/2 rate operation selection) Ch2: PPG (with MP2100 Opt-005 or MP2101A Opt-12) ED (with MP2100 Opt-005 or MP2101A Opt-12) and 1/1 or ½ rate)
Alarm	PLL Unlock Detect Function

Ordering Information

Model	Name
MP2100A	BERTWave
MP2100A-001	Dual Electrical Receiver
MP2100A-003	Optical/Single-ended Electrical Receiver
MP2100A-052	Full Rate Clock Output
MP2100A-152	Full Rate Clock Output Retrofit
MP2101A	BERTWave PE
MP2101A-052	Full Rate Clock Output
MP2101A-011	1CH PPG/ED
MP2101A-012	2CH PPG/ED
MP2101A-152	Full Rate Clock Output Retrofit

Model	Name
MX210001A	Jitter Analysis Software
MX210002A	Transmission Analysis Software

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