Chip to Module .3ck d2.0 Proposals

Add jitter measurements to host and output

- 120F.1
  - J_{RMS} = 0.023 UI
  - J4u = 0.118 UI
  - EoJ = 0.025 UI
- Table 163-5
  - J_{RMS} = 0.023 UI
  - J3u = 0.105 UI
  - EoJ = 0.025 UI
- Table 162-10
  - J_{RMS} = 0.023 UI
  - J3u = 0.115 UI
  - EoJ = 0.025 UI
- Proposed for table 120G-1 and 120G-3 (Reference 120F3.1.3)
  - J_{RMS} = 0.023 UI
  - J4u = 0.129 UI
  - EoJ = 0.025 UI

Input Rx Testing

- 120G.3.3.3.1 Host stressed input test procedure
  - *Change p245 line 49*

  Random jitter and bounded uncorrelated jitter are added such that the output of the pattern generator approximates the output jitter profile given by maximum JRMS and maximum J4u, and complies with the even-odd jitter specification, in Table 120F–1.
  - *To*

  Random jitter and bounded uncorrelated jitter are added such that the input to the host approximates the output jitter profile given by maximum JRMS and maximum J4u, and complies with the even-odd jitter specification, in Table 120G-3.
- And 120G.3.4.1.1 Module stressed input test procedure
  - *Change p248 line 12*

  Random jitter and bounded uncorrelated jitter are added such that the output of the pattern generator approximates the output jitter profile given by maximum JRMS and maximum J4u, and complies with the even-odd jitter specification in Table 120F–1.
  - *To*

  Random jitter and bounded uncorrelated jitter are added such that the input to the module approximates the output jitter profile given by maximum JRMS and maximum J4u, and complies with the even-odd jitter specification, in Table 120G-3.

Suggested COM table to Evaluate Channels

- Add is increased because EoJ is not included in J_{RMS} and J4u and the scope does not accommodate EoJ compensation

```
function [A_DD,sigma_rj] = Calc_COM_Jitter(Jnu,J_RMS,DER_0)
Qn=sqrt(2)*erfcinv(DER_0*10);
A_DD =  ( Jnu/2 + Qn*sqrt(  (Qn^2+1)*J_RMS^2-(Jnu/2)^2 ) ) ...
    / ( Qn^2+1 ) ; % eq 136-9
sigma_rj= ( Jnu/2 -A_DD ) / Qn ; % eq 136-8,
end
```

- $[A_{DD}, \sigma_{rj}] = [\ 0.021\ ,\ 0.01\ ]$ UI
- Recommend $A_{DD} = 0.0335$ for C2M VEO, EH (VEC) computation in the COM 3.1 script
  - Modified A_{DD} can help align to BERT/Scope measurements