

Clarification on PHY Precoder Selection

September 10, 2019

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Introduction

- In D2.1, a way for the PHY to select the precoder on-the-fly was introduced.
 - See D2.0 comment #280 and tu_3ch_01a_0719.pdf.
 - Register bits 1.2311.3:2 = user precoder selection
 - Register bit 1.2311.5
 - = 0: the PHY selects the requested precoder
 - = 1: the PHY uses 1.2311.3:2 as the requested precoder
 - Register bits 1.2310.4:3 are the actual precoder requested by the PHY to the link partner via InfoField during PAM2 training
- However the names and descriptions of these register bits may be confusing about what they really mean
- Revisions are proposed in the following slides

Requested precoder (1.2310.4:3)

- Page 37, line 21 (Table 45-155b)

1.2310.4:3	PrecodeSel	00 = no precoder requested 01 = 1-D precoder requested 10 = 1+D precoder requested 11 = 1-D ² precoder requested	RO
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- Page 38, line 8
 - 45.2.1.193.5 PrecodeSel (1.2310.4:3)
 - Bits 1.2310.4:3 contain the requested precoder setting communicated by the PHY to the link partner via Infocfields in the PrecodeSel field (see 149.4.2.4.4).

Precoder selection (1.2311.5)

- Page 39, line 15 (Table 45-155c)

1.2311.5	Precoder selection	Controls requested precoder setting 0 = PHY 1 = User	R/W
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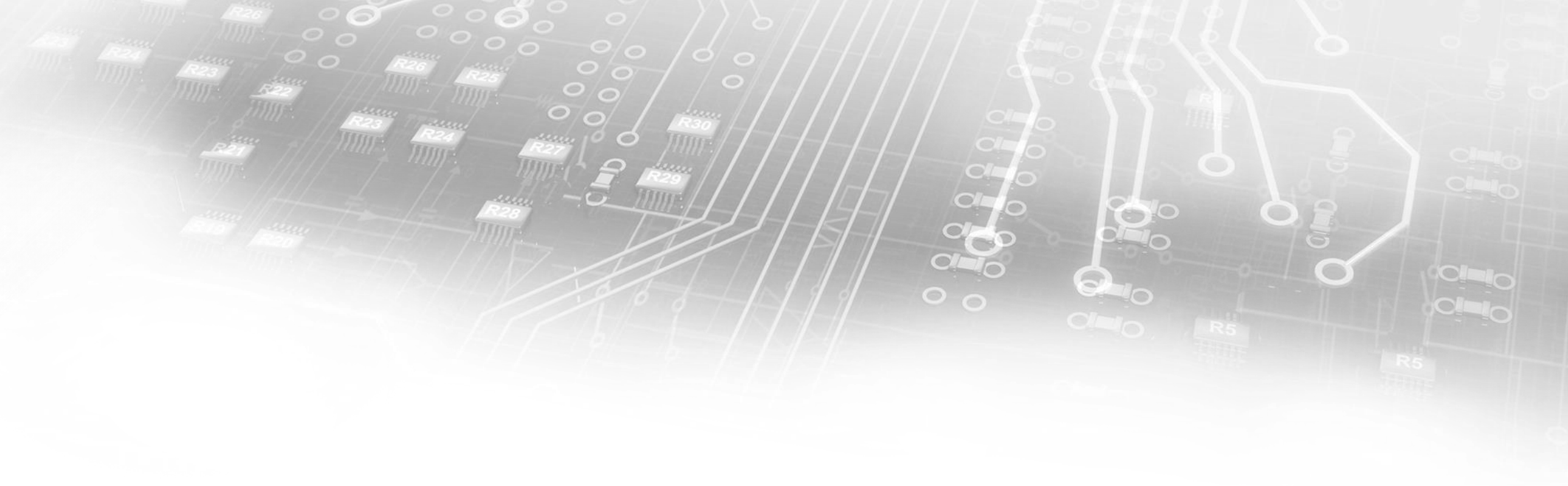
- Page 38, line 45
 - 45.2.1.194.2 Precoder selection (1.2311.5)
 - When 1.2311.5 is set as a one, the PHY shall use 1.2311.3:2 for the value of PrecoderSel, and when set to a zero the PHY controls the value of PrecoderSel. PrecoderSel is the desired precoder setting communicated to the link partner via Infofields specified in 149.4.2.4.4.

User precoder selection (1.2311.3:2)

- Page 39, line 23 (Table 45-155c)

1.2311.3:2	User precoder selection	00 = no precoder 01 = 1-D precoder 10 = 1+D precoder 11 = 1-D ² precoder	R/W
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- Page 39, line 37
 - 45.2.1.194.4 User precoder selection (1.2311.3:2)
 - When bit 1.2311.5 is a one, bits 1.2311.3:2 are the requested precoder setting communicated by the PHY to the link partner via Infofields in the PrecodeSel field (see 149.4.2.4.4).



THANK YOU
