

Definitions

XP: From external reference to 1PPS in

XO: From 1PPS in to internal reference (i.e. 20 MHz in inverted, delayed by 15.8 ns (Meas 3.1) or 20 MHz out advanced by 2.4 ns (Meas 3.2), first positive zero crossing)

XC, XD: Cables etc... from antenna to receiver (typically XC is long cable, XD is short cable(s) + splitter if needed)

XR: receiver internal delay; XS antenna delay

BIPC values (TM116: June 2002): XR1=281.1 ns; XR2=295.4 ns; XR1+XS1=305.6 ns; XR2+XS2=321.9 ns)

Set-up at METAS February 2001

	ITRF 97							
	X	y	Z	UTC(CH) - #5 / ns	#5 - PPS / ns	Meas 3.1 / ns	Meas 3.2 / ns	Ant. Cable / ns
BIPC	4327299.87	567006.92	4636434.60	44120	46.3	12.5	31.0	200.6 + 5.1
					XP = 46.3 ns	Int ref - 1PPSin (XO) = 28.5 ns +/- 0.x ns		XC+XD = 205.7 ns
WAB1	4327298.27	567007.24	4636435.84	44120	173.5		39.0	205.5
					XP = 173.5 ns	Int ref - 1PPSin (XO) = 36.6 ns +/- 0.x ns		Short baseline: XC+XD = 209.3 ns (incl. 3.8 ns inside GeTT)
								Zero baseline: XC+XD = 210.4 ns (incl. 3.8 ns inside GeTT and 0.7 ns s

Observations

Short baseline: 51943-51959, doy 034-050 (3-19 Feb 2001) (Failure 51945-51952)

Zero baseline: 51959-51967 doy 050-058 (19-27 Feb. 2001)

Measurement results

Preliminary: 28/2/2001 (Z. Jiang)

Short baseline: from Doy 35

Delta (-XP-XO+XR1+XC+XD+XS1) (Wab1 - BIPC) = -130.2 ns

Delta (-XP-XO+XR2+XC+XD+XS2) (Wab1 - BIPC) = -131.4 ns

Zero baseline: from Doy 53

Delta (-XP-XO+XR1+XC+XD) (Wab1 - BIPC) = -125.5 ns

Delta (-XP-XO+XR2+XC+XD) (Wab1 - BIPC) = -125.4 ns

Calibration results

Preliminary: 05/06/2001 (G. Petit)

Short baseline

BIPC: -XP-XO+XR1+XC+XD+XS1 = 436.5 ns

BIPC: -XP-XO+XR2+XC+XD+XS2 = 452.8 ns

Wab1: -XP-XO+XC+XD = -0.8 ns

Therefore

Wab1: XR1+XS1 = 307.1 ns

Wab1: XR2+XS2 = 322.2 ns

Zero baseline

BIPC: -XP-XO+XR1+XC+XD = 412.0 ns

BIPC: -XP-XO+XR2+XC+XD = 426.3 ns

Wab1: -XP-XO+XC+XD = -2.1 ns

Therefore

Wab1: XR1 = 288.6 ns

Wab1: XR2 = 303.0 ns

Therefore

Wab1: XS1 = 18.5 ns

Wab1: XS2 = 19.2 ns