

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 TP February 2009

ITRF2005 (estimated with PPP)

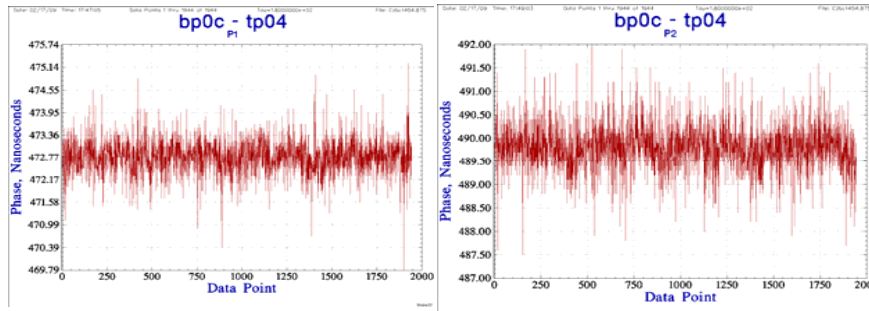
	x	y	z	UTC(TP) to 1PPS in	Meas 3.1 (3.3) / ns	Meas 3.2 / ns	Ant. Cable / ns
BP0C				18.9 ns XP = 18.9 ns	19.2 (18.8) Int ref - 1PPSin (XO) = 34.8 ns using 19.0 as average value	39.8	XC = 235.9 ns; XD = 0 Short base: XC+XD = 235.9 ns
TP04 (GTR50 V1.6.0) INT_DLY = ns				XP = 0.0 ns REF DLY = 0.0 ns			Short base: XC+XD = 0 ns CAB DLY = 137.5 ns
XXXX (GTR50 V) INT_DLY = ns				XP = 0.0 ns REF DLY = ns			Short base: XC+XD = 0 ns CAB DLY = ns

Observations

Short baseline: doy 42-46 (11-15 February 2009, MJD 54873-54877)

Measurement results

17/02/2009 (L. Tisserand) via R2CGGTT5



Short baseline: MJD 54873-54877

Delta (-XP-XO+XR1+XC+XD+XS1) (TP04 - BP0C) = -472.8 ns

Delta (-XP-XO+XR2+XC+XD+XS2) (TP04 - BP0C) = -489.8 ns

Calibration results

10/06/2009 (G. Petit)

Short baseline

BP0C: -XP-XO+XR1+XC+XD+XS1 = 487.8 ns

BP0C: -XP-XO+XR2+XC+XD+XS2 = 504.1 ns

TP04: -XP-XO+XC+XD = 0.0 ns

Therefore

TP04: XR1+XS1 = 15.0 ns

TP04: XR2+XS2 = 14.3 ns

Above values are the corrections to apply to the internal calibration of TP04