

BIPM GPS calibration information sheet

Laboratory:	TL	
Date and hour of the beginning of measurements:	2004/04/21 UTC 00:00	
Date and hour of the end of measurements:	2004/05/02 UTC 23:59	
Receiver setup information		
	Local:	Portable: NML
• Maker:	NML/Topcon	NML/Topcon
• Type:	Euro-80 Dual Frequency	Euro-80 Dual Frequency
• Serial number:		8R633IOLON4
• Receiver internal delay (GPS):	45.1 ns	
• Receiver internal delay (GLO):		
• Antenna cable identification:		NML IF
Corresponding cable delay:	119.1 ns	(159.8 ± 1.0) ns
• UTC cable identification:	RG-58	RG-58
Corresponding cable delay:	30.7 ns	37.6 ns
Delay to local UTC:	0 ns	0 ns
• Receiver trigger level:	0.5 V	0.5 V
• Coordinates reference frame:		
Latitude:	24.9535365344	
Longitude:	121.1646005980	
Height:	201.445	
Antenna information		
	Local:	Portable:
• Maker:	Ashtech	Topcon/Javad
• Type:	Choke ring	MarAnt
• Serial number:	Ash701945C_M	MAGGD #0191
If the antenna is temperature stabilized		
• Set temperature value:	—	—
Antenna cable information		
• Maker	Beldon	
• Type	RG-8	
• Is it a phase stabilised cable:	No	
• Length of cable outside the building:	15 m	
General information		
• Rise time of the local UTC pulse:		
• Is the laboratory air conditioned:	Yes	
• Set temperature value and uncertainty:	23 ± 1 °C	
• Set humidity value and uncertainty:	50 ± 5 %	
Cable delay control		
Cable identification	delay measured by NML	delay measured by local method
NML-IF Antenna cable	(159.8 ± 1.0) ns	(159.0 ± 1.5) ns

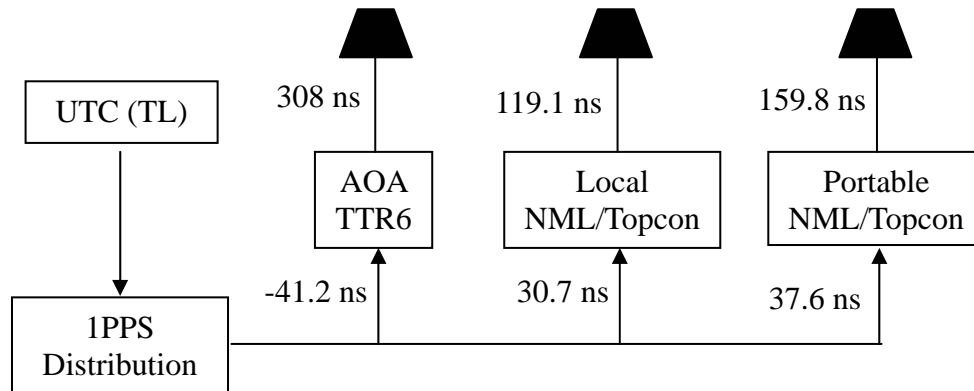
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Laboratory:	TL	
Date and hour of the beginning of measurements:	2004/04/21 UTC 00:00	
Date and hour of the end of measurements:	2004/05/02 UTC 23:59	
Receiver setup information		
	Local:	Portable: NML
• Maker:	AOA	NML/Topcon
• Type:	TTR6	Euro-80 Dual Frequency
• Serial number:		8R633IOLON4
• Receiver internal delay (GPS):	50 ns	
• Receiver internal delay (GLO):		
• Antenna cable identification:	RG-58	NML IF
Corresponding cable delay:	308 ns	(159.8 ± 1.0) ns
• UTC cable identification:	RG-58	RG-58
Corresponding cable delay:	5 ns	37.6 ns
Delay to local UTC:	-46.2 ns	0 ns
• Receiver trigger level:	0.5 V	0.5 V
• Coordinates reference frame:		
Latitude:	24.9535356144	
Longitude:	121.1645396555	
Height:	201.631	
Antenna information		
	Local:	Portable:
• Maker:	AOA	Topcon/Javad
• Type:		MarAnt
• Serial number:		MAGGD #0191
If the antenna is temperature stabilized		
• Set temperature value:	—	—
Antenna cable information		
• Maker		
• Type	RG-58	
• Is it a phase stabilised cable:	No	
• Length of cable outside the building:	15 m	
General information		
• Rise time of the local UTC pulse:		
• Is the laboratory air conditioned:	Yes	
• Set temperature value and uncertainty:	23 ± 1 °C	
• Set humidity value and uncertainty:	50 ± 5 %	
Cable delay control		
Cable identification	delay measured by NML	delay measured by local method
NML-IF Antenna cable	(159.8 ± 1.0) ns	(159.0 ± 1.5) ns

Plot of the experiment set-up:

Link to the local UTC of both receivers and Antenna positions

Lat: 24.9535356	Lat: 24.9535365
Lon: 121.1645397	Lon: 121.1646006
Hgt: 201.631	Hgt: 201.445



Description of the local method of cable delay measurement:

Using HP network analyzer for measuring cable delay.