

## Certificate of Calibration

Certificate No: 09/09/12-126

Description:	High Accuracy Time Transfer System includes choke ring antenna	Manufacturer:	<b>PikTime Systems Ltd</b>
Model Number:	<b>TTS-4</b>	Serial Number:	

Customer: Hong Kong Observatory	Serial Number:	<b>126</b>
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Calibration Date:	<b>03/10/2012</b>	Calibration Due Date:	
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Temperature:	<b>0 to 40 ° C</b>	Relative Humidity:	<b>0 to 80%</b>
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Cable dt values 100 m TTS4-126 = 2 m TTS4-126A = RMS 0,5 ns	<b>415.12 ns</b> <b>8.65 ns</b>	Measured Device Accuracy:	<b>Time transfer Precision: ~1ns</b> <b>Time transfer accuracy: ~2ns</b>
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*This is to certify that the equipment has been calibrated against a primary time standard that is traceable to the international time standard maintained by BIPM. The equipment is fully implement and comply with the Consultative Committee for Time and Frequency (CCTF) Group on Global Navigation Satellite System (GNSS) Time Transfer Standards (CGGTTs) guidelines for manufacturers of GNSS receivers used for timing. The ensemble is traceable to the National Institute of Standards and Technology (NIST) by the long-term comparison measurement with Global Positioning System (GPS).*

Robert Urbaniak  
-----03/10/2012  
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