

88 年度下半年暨 89 年度國家標準實驗室計畫執行成果摘要表 論文

計畫名稱	中文	建立及維持我國時間與頻率國家標準		
計畫編號	英文	The Maintenance and New Technology Establishment of National Standard for Time and Frequency		
計畫編號	TL-001-P301(89)			
執行單位	中華電信研究所		執行期間	88 年 7 月至 89 年 12 月
主持人	廖 嘉 旭		協同主持人	
分項主持人			連絡電話	(03)424-4441
成 果 名 稱	中文			
	英文	TIME TRANSFER WITH PHASE LOCKED LOOP USING GPS COMMON VIEW		
撰 寫 人	Ching-Haur Chang (張清濠)		Yi-Yang Lan (藍義陽)	Sammy Siu (蕭師基)
撰寫日期	中 華 民 國 88 年 12 月 日		撰寫語言及頁數	英文 8 頁
解密期限	中 華 民 國 年 月 底 解 密		機密級	
關 鍵 詞	GPS Common View			
	Phase Locked Loop			
	Time Transfer			
內容摘要：				
<p>A time transfer system with phase locked loop (PLL) using GPS common view is presented in this paper. The basic idea behind this is to compare one clock to the other by means of GPS receivers (or GPS time transfer units), estimate the time offset between the two, and compensate for the offset based on that estimate. By the use of GPS common view, we can compare two clocks located at different sites by exchanging the data recorded in the GPS receivers. Hence the system can be regarded as a phase-locked loop over a wide area. The main advantage of the common-view technique is that the errors associated with the satellite clock are common to both sites and cancel out during comparison. The proposed system achieves an uncertainty of less than 3 ns.</p>				