

Valley experiment manual (12-15 January 2015)

1. Switchyard configuration

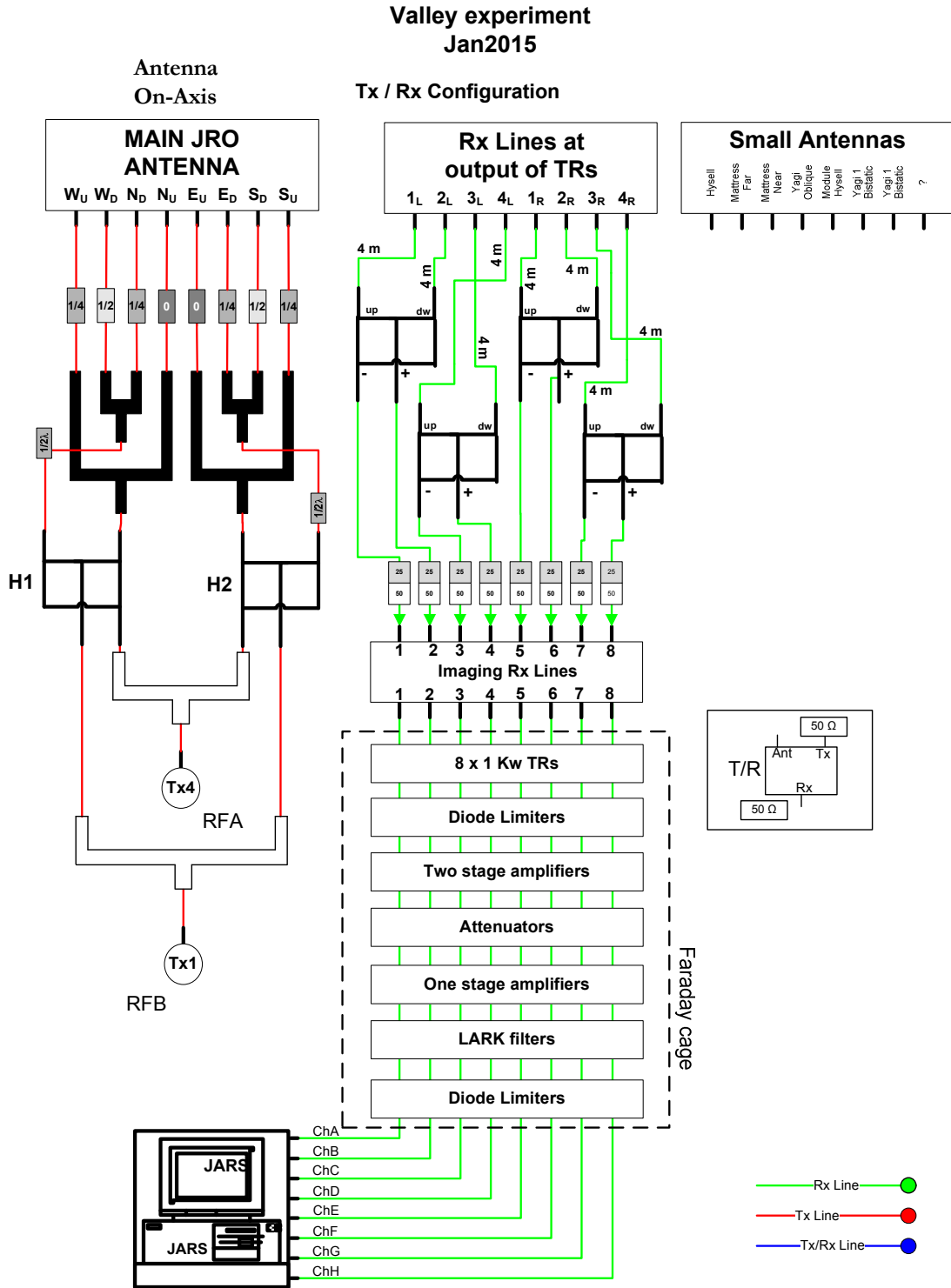


Figura 1

2. Antenna configuration

**Valley experiment
ON AXIS
Jan 2015**

Main Antenna Phasing

North Quarter				East Quarter			
3/5	3/5	3/5	3/5	3/5	3/5	3/5	3/5
3/5	3/5	3/5	3/5	3/5	3/5	3/5	3/5
3/5	3/5	3/5	3/5	3/5	3/5	3/5	3/5
3/5	3/5	3/5	3/5	3/5	3/5	3/5	3/5

West Quarter				South Quarter			
2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/4
2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/4
2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/4
2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/4

Figura 2

3. Pulse configuration

Exps	Valley	
Synchro	1 PPS	
Total NTx per sequence	356 of 420km IPP	
Part	SHORT	LONG
NTx per experiment	80 TX + 4 noise	64 TX
IPP	105 Km	420 Km
TXA	5.25 Km (35us)	21 Km (140us)
CODEA	Barker7	Binary28
TXB	5.25 Km (35us)	21 Km (140us)
CODEB	Barker7 (Flip)	Binary28(Flip)
Code Sequence	RFA : A, A, -A, -A RFB : B, -B, -B, B	RFA : A, A, -A, -A RFB : B, -B, -B, B
Sampling window	H0 = 0.45 km DH = 0.75 km (5 us) NSA = 140	H0 = 0.45 km DH = 0.75 km (5 us) NSA = 560
Data Type	Raw Data	
# Channels	8	
Description of channels	A: -RxHybrid of Wu and Wd B: +RxHybrid of Wu and Wd C: -RxHybrid of Nu and Nd D: +RxHybrid of Nu and Nd E: -RxHybrid of Eu and Ed F: +RxHybrid of Eu and Ed G: -RxHybrid of Su and Sd H: +RxHybrid of Su and Sd	
Acq profiles	356	
BlockperFile	60	
Data rate	21.4 GB / hora	
Transmitter	2 Big TXs (with ATRAD)	
Antenna Tx	See Antenna Config (Figura 1 y Figura 2)	
Antenna Rx	See Antenna Config (Figura 1)	

Table 1

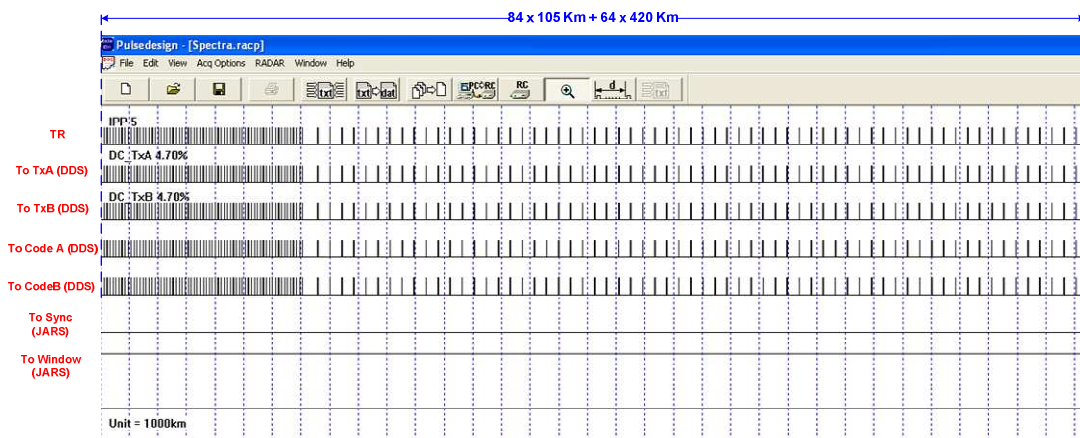


Figura 3 One sequence of short and long pulse

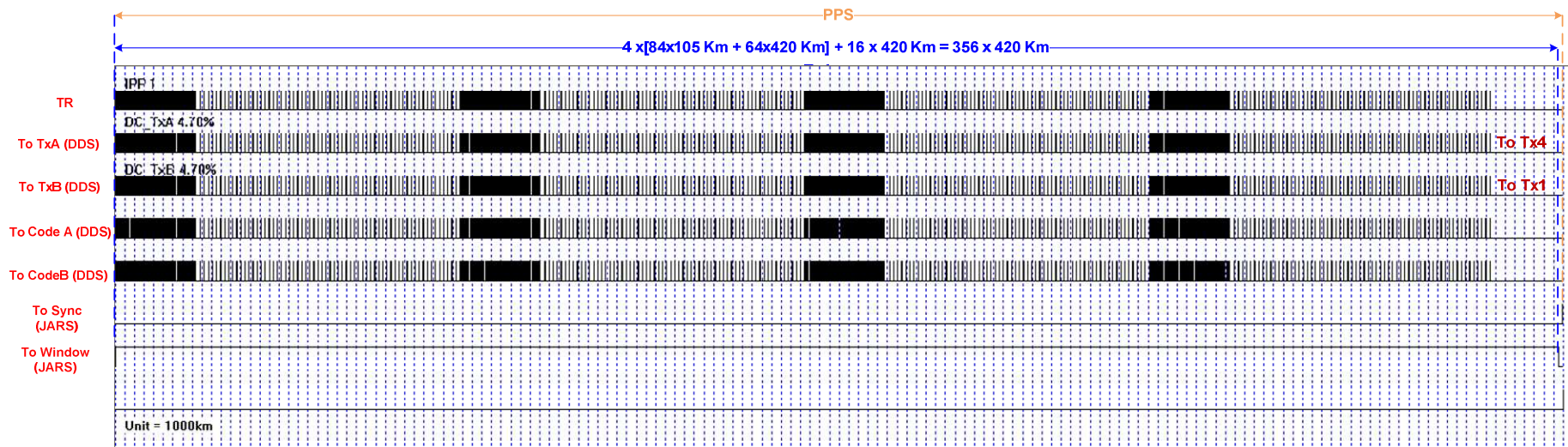


Figura 4 Complete sequence