## TDR Weighting of HLRF Part I (I) 15pages given

S. Fukuda KEK

## Part-I Section 2.7 Outline (1)

			RF power generation and distribution	Allotment	Sum	
2.7	2.7.1		Overview of HLRF R&D in the Technical Design Phase	, moemone	oum	
		2.7.1.1	Development of RDR	0.333	3	0.3
			Flush snd XFEL Apploach/ Test Station at KEK			
		2.7.1.2	SB2009 and Development of Distributed RF System (DRFS)	0.333	}	0.7
		2.7.1.3	SB2009 and Development of Klystron Cluster Sustem	0.334	1	1.0
	2.7.2		HLRF system in Flush and XFEL	2.0	)	3.0
		2.7.2.1	General description of HLRF in Flush and XFEL			
		2.7.2.2	Modulator and Klystron based on RDR			
			Figure 2.7.1 Typical XFEL Modulator			
			Figure 2.7.2 Horizontal Klystron Assembly			
		2.7.2.3	Power Distribution System in XFEL			
			Figure 2.7.3 PDS in XFEL			
			Figure 2.7.4 Circulator and Phase-shifter			
	2.7.3		Test Station Developed at STF in KEK	1.5	5	4.5
		2.7.3.1	Modulator and Klystron based on RDR			
			Figure 2.7.5 Test Station Drawing of KEK			
		2.7.3.2	Power distribution based on RDR and its Variant			
			Figure 2.7.6 PDS of Linear Type and Tree-like			

## Part-I Section 2.7 Outline (2)

2.7.4	ł	R&D of the PDS Devices and Spcification	2.0	6.5			
	2.7.4.1	Circulator					
	2.7.4.2	Phase-shifter					
	2.7.4.3	Variable Power Divider					
		Figure 2.7.7 Kazakov Type Variable Phaseshifter					
	2.7.4.4	Variable Pk Ql Approach in KEK					
		Figure 2.7.8 Variable Pk-Ql Approach in KEK					
2.7.5	5	R&D of the DRFS	2.0	8.5			
	2.7.5.1	General Description of DRFS					
		Figure 2.7.9 Concep for the DRFS					
	2.7.5.2	DRFS Klystrons and their performance					
		Figure 2.7.10 DRFS Klystron and its performance Concep for	the DRFS				
	2.7.5.3	DRFS Modulator					
		Figure 2.7.11 Picture or Blockdiagram of MA modulator and I	PS				
	2.7.5.4	PDS and Circulatorless Approach					
	2.7.5.5	Remaining R&D in the DRFS					

## Part-I Section 2.7 Outline (3)

2.7.6 R&D for KCS

6.5 15.0