New Clip circuit for DR-BPM

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DR-BPM resolution upgrade
Introduce online calibration system
Test of the first module
100 modules will come Dec. 2002
Available in Jan. 2003
Block-diagram of circuit

40m RG223/u cable

RF combiner

Gain change

single bunch

RF amp

1 - 2000MHz

Gain 34.5dB

MicroWave diode detector

LPF 1000MHz

LPF 15MHz

LF amp

DC - 300MHz

Gain 3dB

-2V output

output noise < 470μV

16ch charge ADC

(14bit 500pC)

ch 0

ch 1

ch 2

ch 3

ch 4

4-way splitter

gain change control

New Clip Circuit (4ch in one module)

cal. pulse

calibration pulser with programable attenuator

gate for cal. pulse

gate changer

trigger of cal. pulse

gate from CSY module

gate input

gate

calibration

normal operation