

# Remote Pulser Receiver BLP21x Series

The BLP2x series was developed to solve various problems in ultrasonic applications caused by mismatching between the ultrasonic instrument and transducer. The system consist from Main Box and remote Pulser/Receiver(P/R). Transducer should connect to P/R with short coax cable. This minimize distortion of transmitted ultrasonic wave form and received signal.

The cable between Main box and P/R is only two coax cables. Standard length of this twin coax is 5m. But it is possible to extend up to 100m with RG174U or up to 200m with RG57 equivalent without distortion.

Four types of spikes and a step function pulser are available. Step function type can generate half wave(real uni-pole pulse). It can generate broader ultrasonic pulse. It is very useful for cause grain materials, like as concrete.

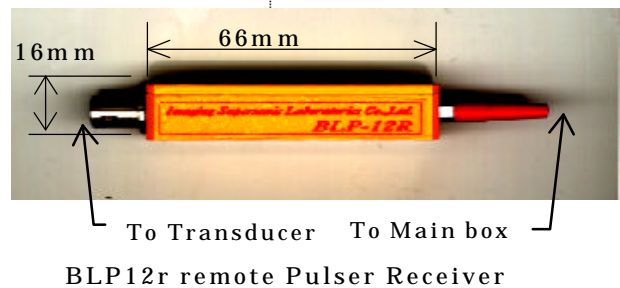
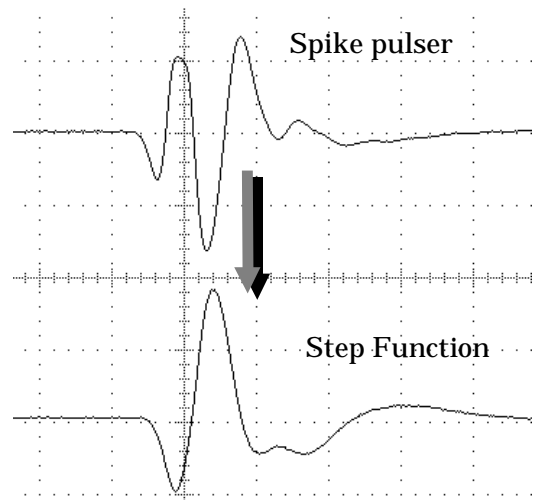
BLP12 remote P/R is minimum in size. This is suit for high frequency applications up to 150MHz. Surface echo and first back wall echo of 15um polyamide film can be separated.

Almost all type of P/R's can connect to same Main box, because the electric spec. of signals in twin coax are same. Also our active transducer AAP series can be connected.

There is three type of Main box, standard(**Std**), Low frequency(Type **LF**) version and High Frequency version(Type **HF**).

Main amplifier have enough gain. It is used as standalone, but also as front end of Ultrasonic equipment's.

## Technical specification



Main box and remote Pulser Receivers

No	Item	BLP21	BLP22	BLP26	BLP27	BLP28	BLP29
1	Type	Step function	High speed	High speed	Normal	High power	High power & speed
2	Pulser Type	Step	Spike	Spike	Spike	Spike	Spike

3	<b>Receiver Type</b>	LF and Std	Std and HF	Std and HF	Std and HF	LF and Std	Std and HF
4	<b>Pulser Voltage(V)</b> <sup>*1</sup>	~500	~260	~260	~500	~900	~520
5	<b>Fall time(nS)</b> <sup>*2</sup>	10	<2	3	10	20	3.5
6	<b>Input impedance (Ohm)</b> <sup>*3</sup>	2K <sup>*4</sup>	2K+30pF	20~1K	20~1K	20~1K	20~1K
7	<b>Coupling capacitor (pulse energy)(pF)</b>	-	500	500	1000	1000	500
8	<b>Gain adjustment(dB)</b> <sup>*5</sup>	78	78	78	78	78	78
9	<b>Gain step(dB)</b>	0.5	0.5	0.5	0.5	0.5	0.5
10	<b>Recommended transducer freq.(MHz)</b>	0.5~25	10~200 <sup>*6</sup>	5~75	1~35	1~20	2~75
11	<b>RF Output(V/Ohm)</b>	0.5pp/50	0.5pp/50	0.5pp/50	0.5pp/50	0.5pp/50	0.5pp/50
12	<b>Filter HP(MHz) 6 positions</b>	0.2,0.5,1,2.5,B B	1,2.5,10,20,BB	0.5,1,2.5,10,BB	0.5,1,2.5,10,BB	0.5,1,2.5,10,BB	0.5,1,2.5,10,BB
13	<b>Filter LP(MHz) 6 positions</b>	0.5,1,2.5,10,BB	2.5,10,20,50,B B	1,2.5,10,20,BB	1,2.5,10,20,BB	1,2.5,10,20,BB	1,2.5,10,20,BB
14	<b>Internal trigger PRF(kHz)</b> <sup>*7</sup>	0.1~10 <sup>*8</sup>	0.1~10	0.1~10	0.1~10	0.1~5	0.1~5
15	<b>External Trigger(kHz)</b>	~10	~10	~10	~10	~5	~5
16	<b>Ext.Control</b> <sup>*9</sup>	TTL parallel	TTL parallel	TTL parallel	TTL parallel	TTL parallel	TTL parallel
17	<b>Size of remote P/R(mm)</b> <sup>*10</sup>	30HX100WX13 5L	16HX20WX66 L	20HX30WX144 L	20HX30WX14 4L	20HX30WX144 L	20HX30WX144 L
18	<b>Cable length between Main box and remote P/R(m)</b> <sup>*11</sup>	5	5	5	5	5	5

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\*1 Caution: Please check Transducers out stand voltage

\*1 @ No load.

\*2 @ No load.

\*3 Bigger coupling capacitor can be specified by customer to minimize distortion.

\*4 Step pulser have serial damping resistors 25...2kOhm

\*5 Customer can specified coupling capacitor 10...4700pF

\*6 Please contact to us for over 25MHz application.

\*7 Option : Max 20kHz

\*8 Step function have current limit circuit. Max PRF @ load <500pF

\*9 All function except PRF can be control through parallel interface.

\*10 Smaller box are available for BLP26,27,28,29. 30HX100WX135L. But fixed damping.

\*11 Option:100m RG174U twin coax.