PRODYN BALUNS

PRODYN baluns are wideband, bilateral passive converters whereby balanced signals can be converted to unbalanced or unbalanced signals to balanced with equal performance. Since PRODYN's baluns are essentially bridge networks and not transformers, they are not susceptible to typical transformer variables and allow for excellent common mode characteristics and flatness over the band. All three ports exhibit an excellent TDR (low VSWR) and the two differential ports are well isolated each from the other. These two features are of importance when using the unit with unmatched sources such as D-Dot (open circuit source) or B-Dot (short circuit source) sensors when maximum clear time is desired.

Typical uses for this versatile device are:

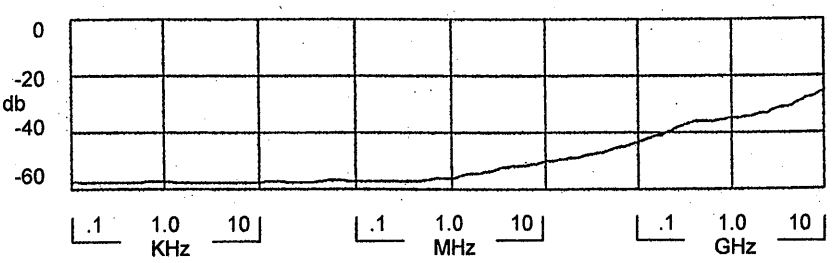
- Converting differential B-Dot & D-Dot sensor outputs (balanced) to a single ended output (unbalanced).
- Cable measurements, whether balanced to unbalanced or unbalanced to balanced
- Time mark addition
- Trigger pick-off

ELECTRICAL SPECIFICATIONS

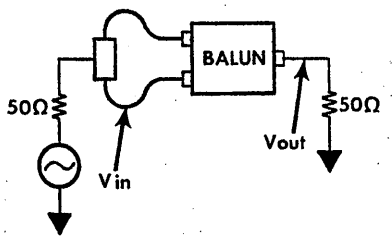
	TYPE							
	A	B	C	D	E	F	G	HV*
Bandwidth (3db)	10 KHz-250 MHz	15 KHz-400 MHz	20 KHz-600 MHz	22 KHz-1.4 GHz	50 Hz-150 MHz	200 KHz-3.5 GHz	250 KHz-10 GHz	200 KHz-3 GHz
Risetime (10-90%)	Pulse risetime approximates specified CW bandwidth							
Insertion Loss (Nominal) ± 3db	6 db	6 db	6db	6 db	6 db	8 db	8 db	8 db
Propagation Delay ns (Nominal)	3.2	2.2	1.9	1.4	5.3	.6	.6	.6
Max Input Voltage (50 ns Duration)	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V	5000 V
Common Mode Rejection Ratio (db) See Graph Below	≥32	≥32	≥30	≥30	≥36	≥28	≥20	≥28
Port Impedance (3 ports)	50	50	50	50	50	50	50	50

** This balun is equipped with type 'HN' connectors only, to accommodate high voltage.*

COMMON MODE MEASUREMENT (Typical)



$$CMRR = 20 \log \frac{V_{out}}{V_{in}}$$



CONNECTOR OPTIONS / CONNECTOR TYPES

MODEL No.	INPUT	OUTPUT
BIB-100	SMA (Female)	SMA (Female)
BIB-101	SMA (Male)	SMAA (Male)
BIB-110	GR (Twinax, TCC type)	GR (Locking)
BIB-120	Type 'N' (Female)	Type 'N' (Female)
BIB-125	Type 'N' (Female)	SMA (Female)
BIB-130	Twinax (Amphenol – 22950)	Type 'N' (Female)
BIB-135	GR (Twinax, TCC type)	Type 'N' (Female)
BIB-140	Type 'N' (Female)	Type 'N' (Male)
BIB-150	GR (Twinax, TCC type)	GR (Locking)
BIB-160	GR (Twinax, TCC type)	SMA (Female)
BIB-170	SMA (Female)	Type 'N' (Female)
BIB-180	BNC (Female)	BNC (Female)
BIB-190	TNC (Female)	Type 'N' (Female)
BIB-200	HN (Female)	HN (Female)

HOW TO ORDER: Example: A 20 KHZ to 600 MHz Balun with Type 'N' Female connectors on input and output will have the following Model Number : BIB-120C ← Bandwidth

↑ Option

Connector

NOTES: Housing size may vary on bandwidth and connector option. Standard tests include insertion loss (flatness) and CMRR Special bandwidth and/or connector options can be manufactured for a small additional charge. Please consult current price list and factory for details.