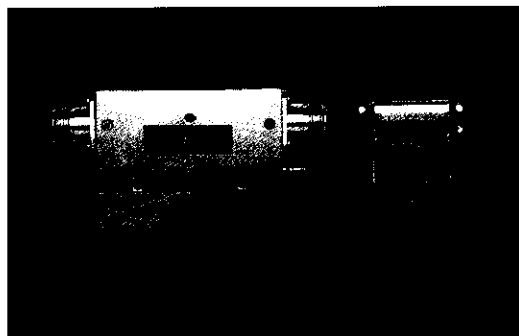


CELLULAR COMMUNICATIONS PRODUCTS

COAXIAL CIRCULATORS AND ISOLATORS



Our range of cellular radio products offer single junction circulators to cover the standard cellular radio frequency bands. Single and double junction isolators are also available. As an additional feature forward power monitors can be included on the double junction isolators.

Custom designs are available on request.

Frequency (GHz)	Type Number	SPECIFICATION			Operating Temp (°C)	POWER		DIMENSIONS (mm)			CONNECTORS
		Isolation (dB) min	Insertion Loss (dB) max	Return Loss (dB) min		Forw. (W)	Rev. (W)	a	b	c	Type
Double Junction Isolators											
925 - 960	PF4631	50	0.4	23	-10 to +60	60	60	75.0	41.0	27.0	N-Female
1805 - 1880	NF4633	50	0.4	23	-10 to +60	60	60	75.0	41.0	27.0	N-Female
1930 - 1990	NF6634	50	0.4	23	-10 to +60	60	60	75.0	41.0	27.0	N-Female

N.B. These units can all be supplied with SMA female connectors

Frequency (GHz)	Type Number	SPECIFICATION			Operating Temp (°C)	POWER		DIMENSIONS (mm)			CONNECTORS
		Isolation (dB) min	Insertion Loss (dB) max	Return Loss (dB) min		Forw. (W)	Rev. (W)	a	b	c	Type
Double Junction Isolators with forward power monitor											
925 - 960	PFM4631	50	0.4	23	-10 to +60	60	60	75.0	41.0	27.0	N-Female
1805 - 1880	NFM4632	50	0.4	23	-10 to +60	60	60	75.0	41.0	27.0	N-Female
1930 - 1990	NFM4633	50	0.4	23	-10 to +60	60	60	75.0	41.0	27.0	N-Female

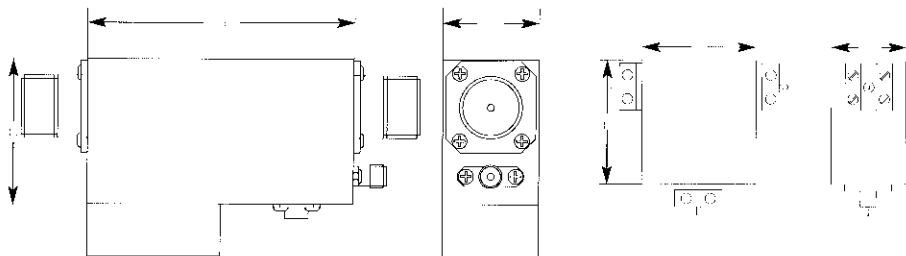
N.B. Monitor port coupling value to be specified by customer

Frequency (GHz)	Type Number	SPECIFICATION			Operating Temp(°C)	POWER	DIMENSIONS (mm)			CONNECTORS
		Isolation (dB) min	Insertion Loss (dB) max	Return Loss (dB) min		Forward (W)	a	b	c	Type
Single Junction Circulators										
880 - 915	PGA3632	23	0.25	21	-10 to +70	10	30.9	33.7	20.1	Microstrip Tab
925 - 960	PGA3633	23	0.2	21	-10 to +70	50	30.9	33.7	20.1	Microstrip Tab
1805 - 1880	NC3633	23	0.2	23	-10 to +70	50	38.0	45.0	27.0	N-Female
1805 - 1880	NGA3631	23	0.2	21	-10 to +70	50	30.9	33.7	20.1	Microstrip Tab
1930 - 1990	NGA3632	23	0.2	21	-10 to +70	50	30.9	33.7	20.1	Microstrip Tab

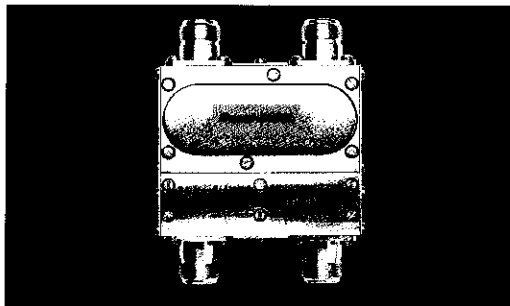
N.B. These units can all be supplied with SMA female connectors

Frequency (GHz)	Type Number	SPECIFICATION			Operating Temp (°C)	POWER		DIMENSIONS (mm)			CONNECTORS
		Isolation (dB) min	Insertion Loss (dB) max	Return Loss (dB) min		Forw. (W)	Rev. (W)	a	b	c	Type
Single Junction Isolators											
880 - 915	PDA3632	23	0.25	21	-10 to +70	10	0.5	30.9	33.7	20.1	Microstrip Tab
925 - 960	PDA3633	25	0.2	21	-10 to +70	50	50	30.9	43.2	20.1	Microstrip Tab
1805 - 1880	NF3632	23	0.2	23	-10 to +70	50	50	38.0	56.0	27.0	N-Female
1805 - 1880	NDA3632	25	0.2	21	-10 to +70	50	50	30.9	43.2	20.1	Microstrip Tab
1930 - 1990	NDA3633	25	0.2	21	-10 to +70	50	50	30.9	43.2	20.1	Microstrip Tab

N.B. These units can all be supplied with SMA female connectors



ISO-HYBRIDS

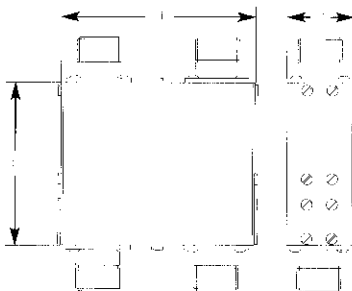


Covering all standard cellular radio frequency bands, these components offer either single or double isolators integrated with a 3dB hybrid. Iso-hybrids are available for all the standard cellular radio frequency bands to provide optimum microwave performance.

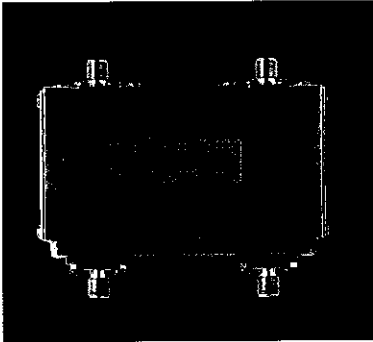
Custom designs are available on request.

Frequency (GHz)	Type Number					Operating Temp (°C)				Forward (W)	Reverse (W)
		Isolation O/P-I/p (dB) min	Isolation I/P-I/p (dB) min	Insertion Loss (dB) max	Return Loss (dB) min		a	b	c		
Single Junction Iso-hybrids											
925 - 960	PFY4031	23	48	3.4	21	-10 to +70	77.12	67.38	26	60	60
1805 - 1880	NFY4031	23	48	3.4	21	-10 to +70	77.12	67.38	26	60	60
1930 - 1990	NFY4032	23	48	3.4	21	-10 to +70	77.12	67.38	26	60	60

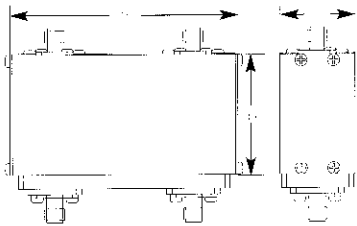
Frequency (GHz)	Type Number					Operating Temp (°C)					
		Isolation O/P-I/p (dB) min	Isolation I/P-I/p (dB) min	Insertion Loss (dB) max	Return Loss (dB) min		a	b	c	Forward (W)	Reverse (W)
Double Junction Iso-hybrids											
925 - 960	PFY4032	45	72	3.6	23	-10 to +70	76.8	101.1	26	60	60
1805 - 1880	NFY4033	45	72	3.6	23	-10 to +70	76.8	101.1	26	60	60
1930 - 1990	NFY4034	45	72	3.6	23	-10 to +70	76.8	101.1	26	60	60



DUAL ISOLATORS



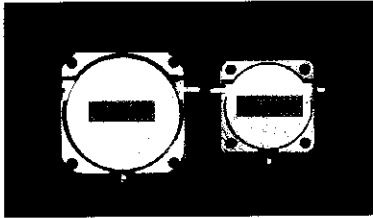
Units incorporate two discrete isolators integrated within one assembly to minimise package size.



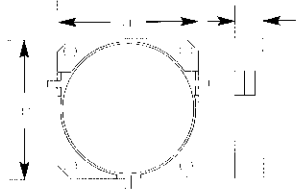
Custom designs are available on request.

Frequency (GHz)	Type Number	SPECIFICATION				Operating Temp (°C)	DIMENSIONS (mm)			POWER	
		Isolation O/P-I/P (dB) min	Isolation I/P-I/P (dB) min	Insertion Loss (dB) max	Return Loss (dB) min		a	b	c	Forward (W)	Reverse (W)
925 - 960	PD4630	23	80	0.25	21	-10 to +70	77.12	41.0	26	60	60
1805 - 1880	ND4630	23	80	0.25	21	-10 to +70	77.12	41.0	26	60	60
1930 - 1990	ND4631	23	80	0.25	21	-10 to +70	77.12	41.0	26	60	60

PACKAGED DROP-INS
CIRCULATORS AND ISOLATORS



A range of packaged drop-in circulators and isolators are available to cover all the standard cellular radio frequency bands.



Custom designs are available on request.

Frequency (GHz)	Type Number	SPECIFICATION			Operating Temp (°C)	DIMENSIONS (mm)			POWER	
		Isolation (dB) min	Insertion Loss (dB) max	Return Loss (dB) min		a	b	c	Forward (W)	Reverse (W)
CIRCULATORS										
925 - 960	PZM3530	20	0.4	19	-10 to +55	25.4	25.4	7.62	75	60
1805 - 1880	NZM3530	20	0.4	19	-15 to +65	19.1	19.1	6.35	75	45
1930 - 1990	NZM3531	20	0.4	19	-15 to +65	19.1	19.1	6.35	75	45
2100 - 2300	SZM3530	20	0.4	19	-10 to +55	19.1	19.1	6.35	50	45

Frequency (GHz)	Type Number	SPECIFICATION			Operating Temp (°C)	DIMENSIONS (mm)			POWER	
		Isolation (dB) min	Insertion Loss (dB) max	Return Loss (dB) min		a	b	c	Forward (W)	Reverse (W)
ISOLATORS										
925 - 960	PZF3530	20	0.4	19	-10 to +55	25.4	31.75	7.62	75	60
1805 - 1880	NZF3530	20	0.4	19	-15 to +65	19.1	25.4	6.35	75	45
1805 - 1880	NZF3630	28	0.2	26	-10 to +80	25.4	31.75	7.62	50	45
1930 - 1990	NZF3531	20	0.4	19	-15 to +65	19.1	25.4	6.35	75	45
2100 - 2300	SZF3530	20	0.4	19	-10 to +55	19.1	25.4	6.35	50	45