FEATURES

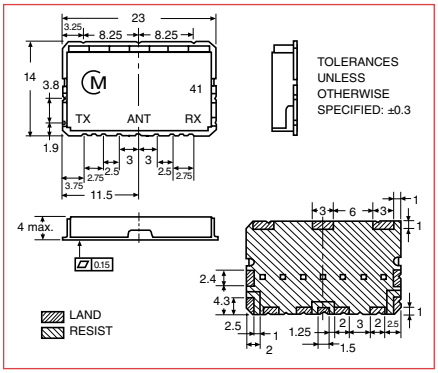
- Low loss designs by use of high Q value dielectric material
- Small size by use of high dielectric constant ceramics
- Excellent temperature stability (0 ± 5ppm/C max.)
- High mechanical stability. Resistant to damage caused by vibration.
- Reflow solderable
- Mountable by automatic placement

PART NUMBERING SYSTEM

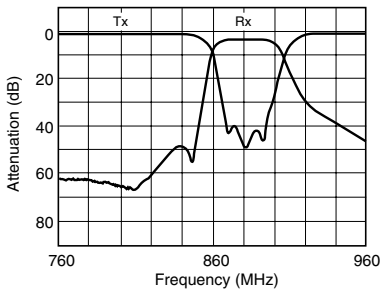
DFY	G	R836/R881	C	NH	A
DESCRIPTION	**TYPE**	**FREQUENCY IN GHZ**	**STYLE**	**PACKAGE STYLE**	**SPECIFICATION**
DFY: Duplexer	G: G Block K: K Block No Indication: DP Type (Discrete Resonator Style)	Example: R836: .836GHz (836MHz) IR88: 1.88GHz (1880MHz)		NH: Monoblock HH: Monoblock BH: Discrete Resonator GH: Discrete Resonator	**DEPENDENT A–Z**

STANDARD DUPLEXER E-AMPS & TDMA – DFY2R836CR881BHD

DIMENSIONS: mm



TRANSMISSION CHARACTERISTICS



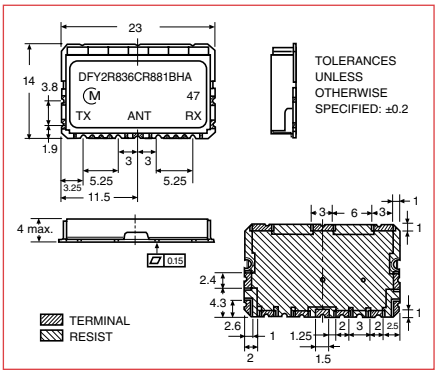
Tx Filter = BEF Rx Filter = BPF

SPECIFICATIONS

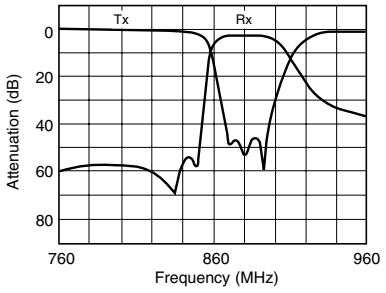
Application	Part Number	Center Frequency (MHz)		Bandwidth (BW) (MHz)	Insertion Loss in BW (dB) max.	Ripple in BW (dB) max.	V.S.W.R. in BW max.	Attenuation (dB) min. (MHz)	Max. Rated Power (W)
TDMA	DFY2R836CR881BHD	Tx	836.5 (FT)	FT ± 12.5	2.4	1.6	1.7	36 (FR ± 12.5)	2.0
		Rx	881.5 (FR)	FR ± 12.5	4.0	1.3	1.8	45 (FT ± 12.5)	1.0

STANDARD DUPLEXER E-AMPS & TDMA – DFY2R836CR881BHA

DIMENSIONS: mm



TRANSMISSION CHARACTERISTICS



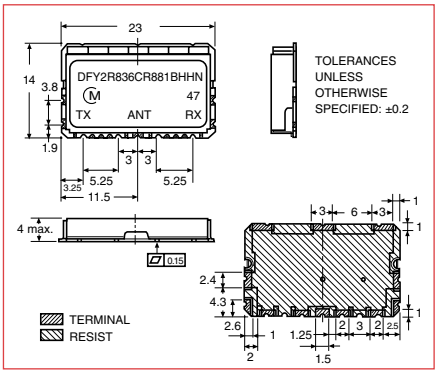
Tx Filter = BEF Rx Filter = BPF

SPECIFICATIONS

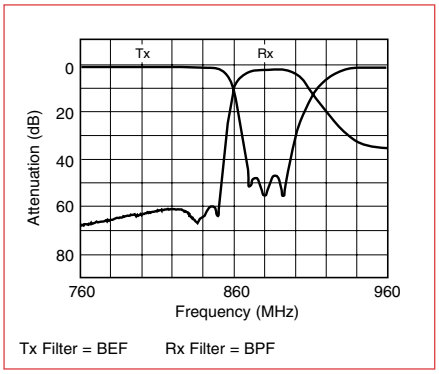
Application	Part Number	Center Frequency (MHz)		Bandwidth (BW) (MHz)	Insertion Loss in BW (dB) max.	Ripple in BW (dB) max.	V.S.W.R. in BW max.	Attenuation (dB) min. (MHz)	Max. Rated Power (W)
TDMA	DFY2R836CR881BHA	Tx	836.5 (FT)	FT ± 12.5	2.6 (+10 ~ +35°C) 2.8 (–30 ~ +85°C)	1.9	1.7	43 (FR ± 12.5)	2.0
		Rx	881.5 (FR)	FR ± 12.5	3.7	1.3	1.8	50 (FT ± 12.5)	1.0

STANDARD DUPLEXER E-AMPS & CDMA – DFY2R836CR881BHHN

DIMENSIONS: mm



TRANSMISSION CHARACTERISTICS

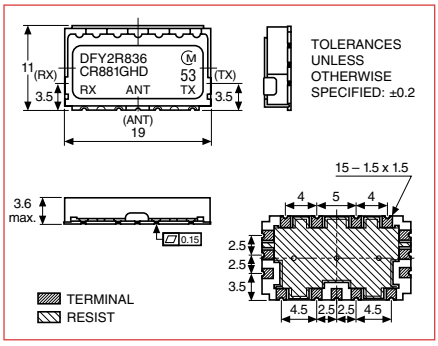


SPECIFICATIONS

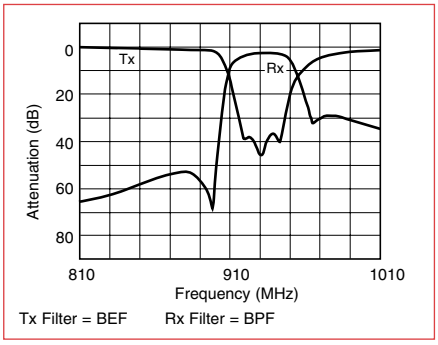
Application	Part Number	Center Frequency (MHz)		Bandwidth (BW) (MHz)	Insertion Loss in BW (dB) max.	Ripple in BW (dB) max.	V.S.W.R. in BW max.	Attenuation (dB) min. (MHz)	Max. Rated Power (W)
CDMA	DFY2R836CR881BHHN	Tx	836.5 (FT)	FT ± 12.5	2.6	1.8	1.7	43 (FR ± 12.5)	2.0
		Rx	881.5 (FR)	FR ± 12.5	4.0	1.6	1.8	56 (FT ± 12.5)	1.0

STANDARD DUPLEXER E-AMPS & TDMA DFY2R836CR881GHD

DIMENSIONS: mm



TRANSMISSION CHARACTERISTICS

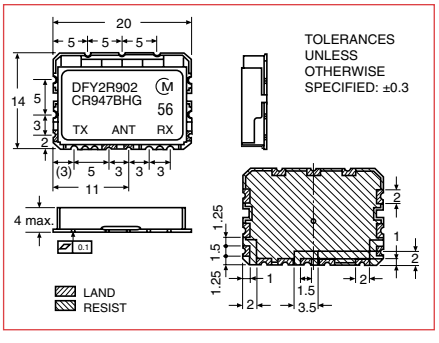


SPECIFICATIONS

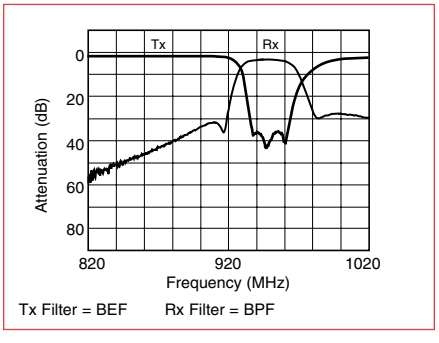
Application	Part Number	Center Frequency (MHz)		Bandwidth (BW) (MHz)	Insertion Loss in BW (dB) max.	Ripple in BW (dB) max.	V.S.W.R. in BW max.	Attenuation (dB) min. (MHz)	Max. Rated Power (W)
TDMA	DFY2R836CR881GHD	Tx	836.5 (FT)	FT ± 12.5	2.4	1.7	1.7	36 (FR ± 12.5)	2.0
		Rx	881.5 (FR)	FR ± 12.5	4.3	1.7	1.8	50 (FT ± 12.5)	1.0

STANDARD DUPLEXER GSM DFY2R902CR947BHG

DIMENSIONS: mm



TRANSMISSION CHARACTERISTICS

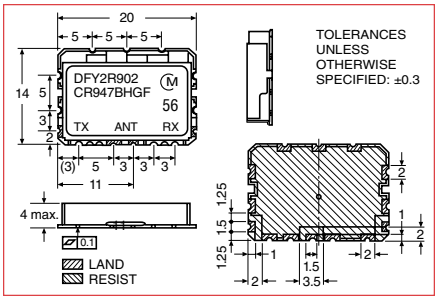


SPECIFICATIONS

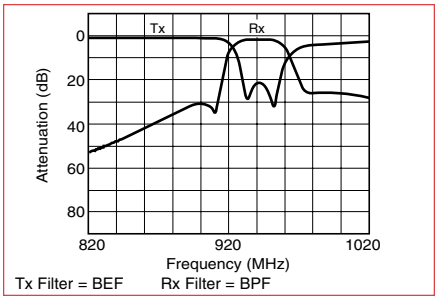
Application	Part Number	Center Frequency (MHz)		Bandwidth (BW) (MHz)	Insertion Loss in BW (dB) max.	Ripple in BW (dB) max.	V.S.W.R. in BW max.	Attenuation (dB) min. (MHz)	Max. Rated Power (W)
GSM	DFY2R902CR947BHG	Tx	902.5 (FT)	FT ± 12.5	1.6 (25°C) 1.8 (–35 ~ +85°C)	1.2	1.7	30 (FR ± 12.5)	4.0
		Rx	947.5 (FR)	FR ± 12.5	3.0 (25°C) 3.2 (–30 ~ +85°C)	1.3	2.0	27 (FT ± 12.5)	—

STANDARD DUPLEXER GSM
DFY2R902CR947BHGF

DIMENSIONS: mm



TRANSMISSION CHARACTERISTICS

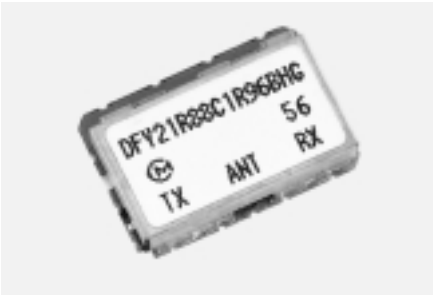


SPECIFICATIONS

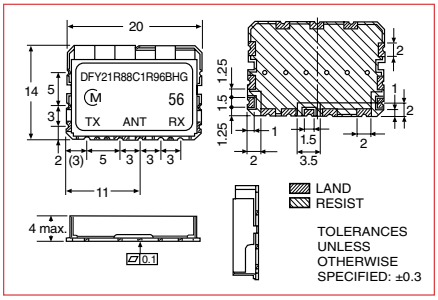
Application	Part Number		Center Frequency (MHz)	Bandwidth (BW) (MHz)	Insertion Loss in BW (dB) max.	Ripple in BW (dB) max.	V.S.W.R. in BW max.	Attenuation (dB) min. (MHz)	Max. Rated Power (W)
GSM	DFY2R902CR947BHGF	Tx	902.5 (FT)	FT ± 12.5	1.0 (0 ~ +35°C) 1.2 (–30 ~ +85°C)	0.9	1.7	15 (FR ± 12.5)	*Peak 4.0 Average 0.5
		Rx	947.5 (FR)	FR ± 12.5	3.0 (0 ~ +35°C) 3.2 (–30 ~ +85°C)	1.1	2.0	28 (FT ± 12.5)	—

*Peak @ 4W (0.6 nsec., duty 12.5%)

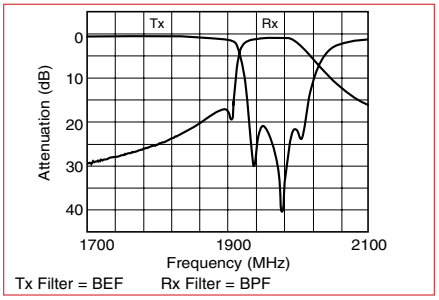
STANDARD DUPLEXER PCS–TDMA & DCS1900
DFY21R88C1R96BHG



DIMENSIONS: mm



TRANSMISSION CHARACTERISTICS

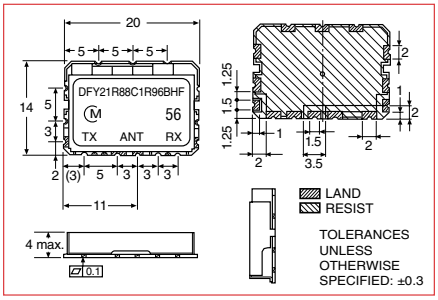


SPECIFICATIONS

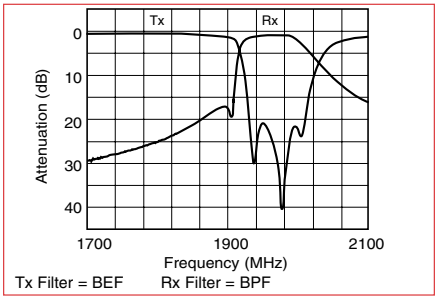
Application	Part Number		Center Frequency (MHz)	Bandwidth (BW) (MHz)	Insertion Loss in BW (dB) max.	Ripple in BW (dB) max.	V.S.W.R. in BW max.	Attenuation (dB) min. (MHz)	Max. Rated Power (W)
PCS	DFY21R88C1R96BHG	Tx	1880 (FT)	FT ± 30.0	2.0 (5 ~ +35°C) 2.3 (–30 ~ +85°C)	1.7	1.8	20 (FR ± 30)	2.0
		Rx	1960 (FR)	FR ± 30.0	3.2	1.8	1.8	25 (FT ± 30)	1.0

STANDARD DUPLEXER PCS–TDMA & DCS1900
DFY21R88C1R96BHF

DIMENSIONS: mm



TRANSMISSION CHARACTERISTICS



SPECIFICATIONS

Application	Part Number		Center Frequency (MHz)	Bandwidth (BW) (MHz)	Insertion Loss in BW (dB) max.	Ripple in BW (dB) max.	V.S.W.R. in BW max.	Attenuation (dB) min. (MHz)	Max. Rated Power (W)
PCS	DFY21R88C1R96BHF	Tx	1880 (FT)	FT ± 30.0	1.7 (0 ~ +35°C) 2.0 (–30 ~ +85°C)	1.6	1.8	17 (FR ± 30)	*Peak 4.0 Average 0.5
		Rx	1960 (FR)	FR ± 30.0	3.0	1.7	2.0	20 (FT ± 30)	—

*Peak @ 4W (0.6 nsec., duty 12.5%)

Application	Part Number	Application	Part Number
LMR	DFY2R815CR860BHA	PDC800	DFY2R820CR950KHB
EGSM	DFY2R897CR942BHB	PDC1500	DFYJ1R44C1R48LHA
DCS1800	DFY21R74C1R84BHE	KOREAN PCS	DFY21R76C1R85BHC
	DFY21R74C1R84BHF	MSAT	DFY21R54C1R64BTC

DUPLEXERS–GB/KB TYPE

muRata
Innovator in Electronics

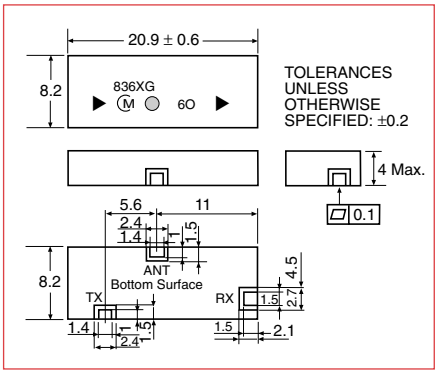
DFY Series

FEATURES

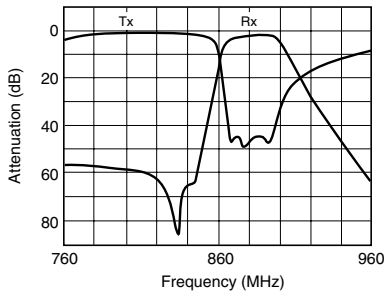
- Low insertion loss for using high Q value dielectric resonators.
- Small and light for using high dielectric constant ceramics.
- Excellent temperature stability for temperature compensated dielectric constant (0 ± 5ppm/(degree C) max.)
- Excellent mechanical stability without vibratile structure.
- SMD and reflow soldering is available.
- Mountable by automatic placing machine.

STANDARD DUPLEXER E-AMPS & TDMA – DFYGR836CR881NHA

DIMENSIONS: mm



TRANSMISSION CHARACTERISTICS



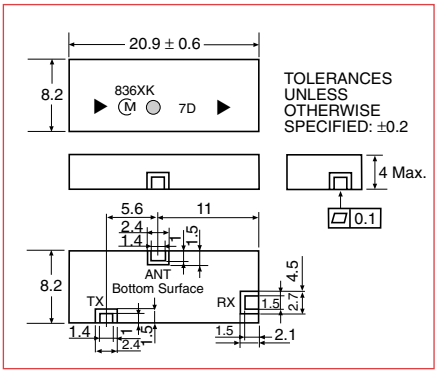
Tx Filter = BEF Rx Filter = BPF

SPECIFICATIONS

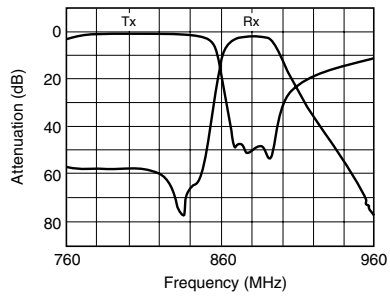
Application	Part Number	Center Frequency (MHz)		Bandwidth (BW) (MHz)	Insertion Loss in BW (dB) max.	Ripple in BW (dB) max.	V.S.W.R. in BW max.	Attenuation (dB) min. (MHz)	Max. Rated Power (W)
EAMPS	DFYGR836CR881NHA	Tx	836.5 (FT)	FT ± 12.5	2.4 (+5 ~ +35°C) 2.6 (–30 ~ +85°C)	1.75	1.7	42 (FR ± 12.5)	2.0
		Rx	881.5 (FR)	FR ± 12.5	3.8 (+5 ~ +35°C) 4.1 (–30 ~ +85°C)	2.0	1.8	50 (FT ± 12.5)	1.0

STANDARD DUPLEXER CDMA & TDMA – DFYGR836CR881NHB

DIMENSIONS: mm



TRANSMISSION CHARACTERISTICS



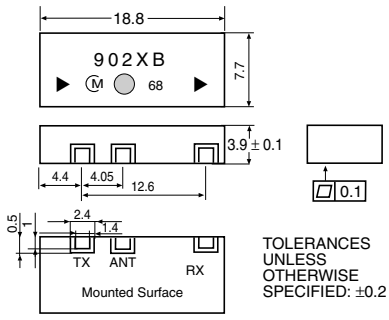
Tx Filter = BEF Rx Filter = BPF

SPECIFICATIONS

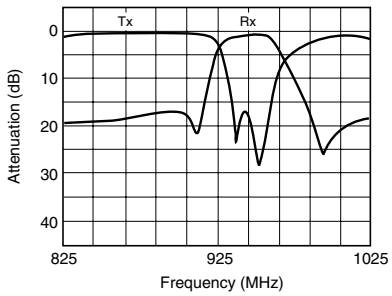
Application	Part Number	Center Frequency (MHz)		Bandwidth (BW) (MHz)	Insertion Loss in BW (dB) max.	Ripple in BW (dB) max.	V.S.W.R. in BW max.	Attenuation (dB) min. (MHz)	Max. Rated Power (W)
CDMA	DFYGR836CR881NHB	Tx	836.5 (FT)	FT ± 12.5	2.4 (+50 ~ +35°C) 2.6 (–30 ~ +85°C)	1.75	1.7	42 (FR ± 12.5)	2.0
		Rx	881.5 (FR)	FR ± 12.5	4.2 (0 ~ +35°C) 4.5 (–30 ~ +85°C)	2.3	1.8	56 (FT ± 12.5)	1.0

STANDARD DUPLEXER GSM
DFYGR902CR947NHA

DIMENSIONS: mm



TRANSMISSION CHARACTERISTICS



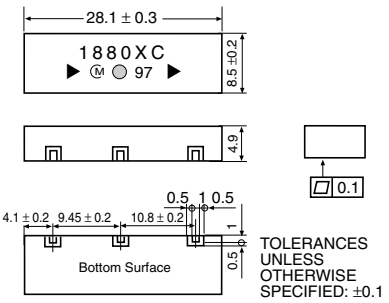
Tx Filter = BEF Rx Filter = BPF

SPECIFICATIONS

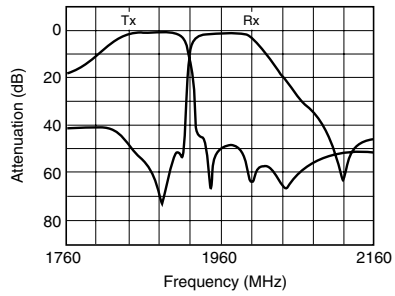
Application	Part Number	Center Frequency (MHz)		Bandwidth (BW) (MHz)	Insertion Loss in BW (dB) max.	Ripple in BW (dB) max.	V.S.W.R. in BW max.	Attenuation (dB) min. (MHz)	Max. Rated Power (W)
GSM	DFYGR902CR947NHA	Tx	902.5 (F_T)	F_T ± 12.5	1.1 (0 ~ +35°C)	0.8	1.7	14 (F_R ± 12.5)	4.0 (Peak)
					1.3 (–30 ~ +85°C)				0.5 (Avg.)
		Rx	947.5 (F_R)	F_R ± 12.5	3.2 (0 ~ +35°C)	1.3	2.0	29 (F_T ± 12.5)	—
					3.5 (–30 ~ +85°C)				

STANDARD DUPLEXER PCS
DFYK1R88C1R96HHC

DIMENSIONS: mm



TRANSMISSION CHARACTERISTICS



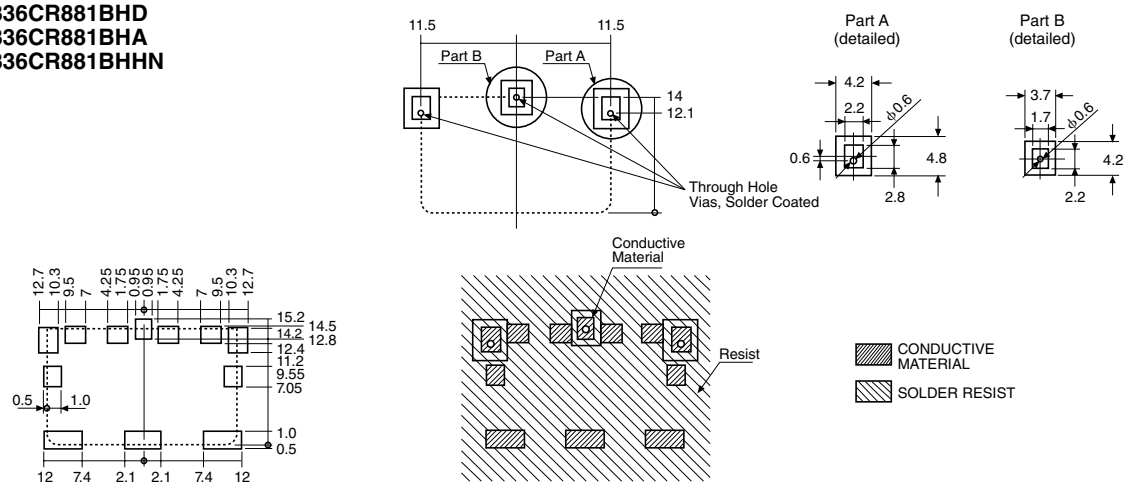
Tx Filter = BEF Rx Filter = BPF

SPECIFICATIONS

Application	Part Number	Center Frequency (MHz)		Bandwidth (BW) (MHz)	Insertion Loss in BW (dB) max.	Ripple in BW (dB) max.	V.S.W.R. in BW max.	Attenuation (dB) min. (MHz)	Max. Rated Power (W)
PCS	DFYK1R88C1R96HHC	Tx	1880.0 (F_T)	F_T ± 30.0	3.5	2.5	2.0	35 (F_R ± 12.5)	2.0
		Rx	1960.0 (F_R)	F_R ± 30.0	4.4	3.0	2.2	45 (F_T ± 12.5)	1.0

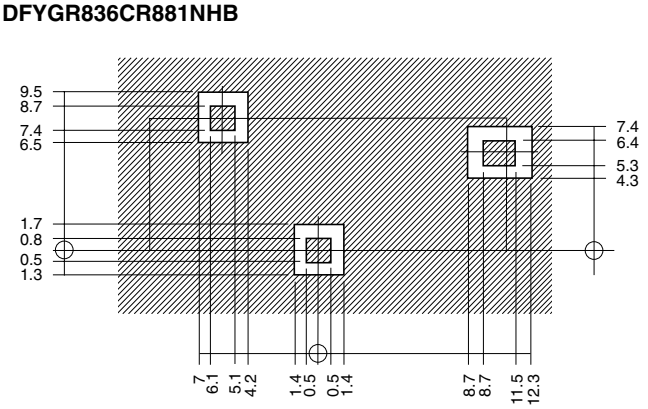
DP TYPE/E-AMPS/TDMA/CDMA

DFY2R836CR881BHD
DFY2R836CR881BHA
DFY2R836CR881BHHN

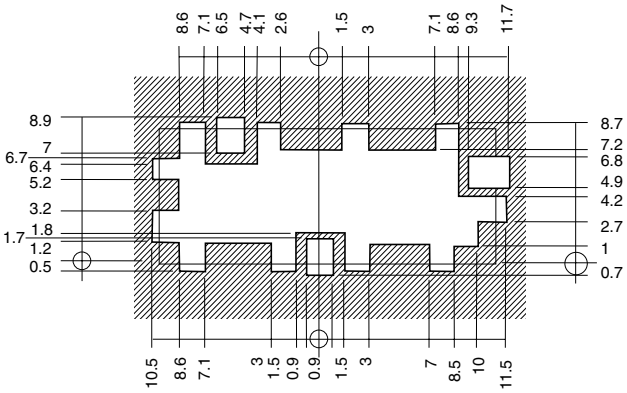


GB/KB TYPE **DIMENSIONS: mm**

DFYGR836CR881NHA
DFYGR836CR881NHB



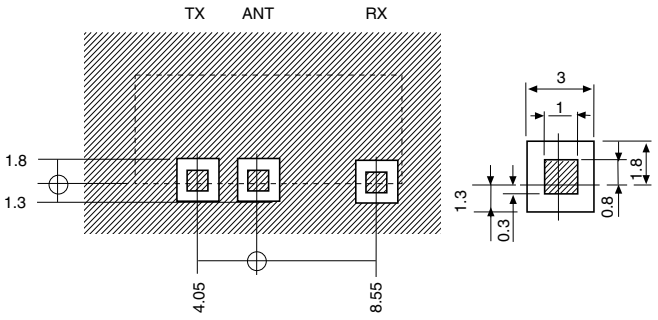
Electrode



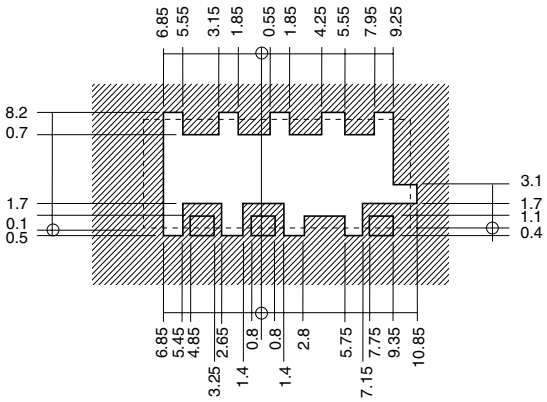
Solder Resist

Note: Impedance of signal lines should be 50 ohms including land pattern. The standard condition is applying the glass epoxy board (t = 1.0mm, dielectric constant = 4.8, copper plating on both surfaces) and the land patterns are connected to 50 ohms micro-strip lines on back side surface through the via hole.

DFYGR902CR947NHA



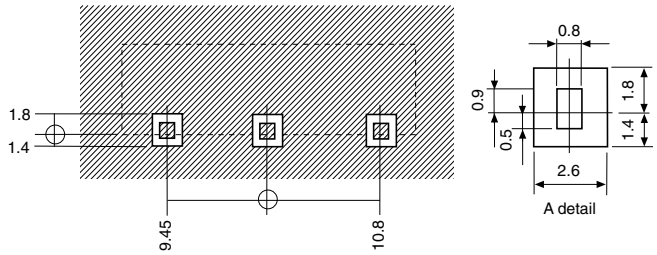
Electrode



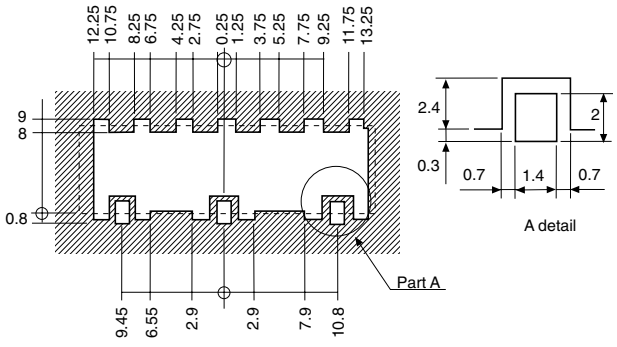
Solder Resist

Note: Impedance of signal lines should be 50 ohms including land pattern. The standard condition is applying the glass epoxy board (t = 1.0mm, dielectric constant = 4.8, copper plating on both surfaces) and the land patterns are connected to 50 ohms micro-strip lines on back side surface through the via hole.

DFYK1R88C1R96HHC



Electrode



Solder Resist

Note: Impedance of signal lines should be 50 ohms including land pattern. The standard condition is applying the glass epoxy board (t = 1.0mm, dielectric constant = 4.8, copper plating on both surfaces) and the land patterns are connected to 50 ohms micro-strip lines on back side surface through the via hole.