

Radio Module Options

Virtual Access offers an extensive range of radio modules. Use the tables below to choose the best option for your application.

RF Band Options								
Order Code	Region	2G Bands	3G Bands	LTE Bands	LTE Category	GPS	Operating Temp	Formats
RFA	Europe China	850, 900, 1800 1900	900, 2100	-	-	-	-40°C to +70°C	PCIE
RFB*	Europe Asia	850, 900, 1800 1900	850, 900, 1900, 2100	-	-	✓	-40°C to +70°C	PCIE
RFC*	Europe Asia	850, 900, 1800 1900	850, 900, 1900, 2100	B1, B2, B3, B5, B7, B8, B20	-	✓	-30°C to +70°C	PCIE
RFD	Worldwide	-	-	B3, B7, B20, B31	-	✓	-20°C to +60°C	PCIE
RFE*	Europe	900, 1800	900, 2100	B1, B3, B7, B8, B20, B38, B40	3	✓	-30°C to +70°C	PCIE
RFF	Worldwide	-	CDMA TX 452.500 ~ 457.475 RX 462.000 ~ 467.475	-	-	-	-20°C to +60°C	PCIE
RFG*	Worldwide	850, 900, 1800 1900	850, 900, 2100	B1, B3, B5, B7, B20	-	✓	-40°C to +70°C	PCIE
RFJ	Worldwide	450	-	-	-	-	-40°C to +70°C	PCIE
RFK	EMEA	1900, 850, 900 1800	1900, 850, 900, 1800	B1, B2, B3, B7, B20, B5, B28	-	-	-40°C to +70°C	M.2
RFL*	Europe APAC	900, 1800	900, 2100	-	-	-	-40°C to +70°C	PCIE
RFM*	North America	-	850, 1900	B2, B4, B5, B17	-	✓	-30°C to +70°C	PCIE
RFN	Worldwide	-	850, 900, 1700, 1800 1900, 2100	B1, B2, B3, B4, B5, B7, B12, B13 B20, B25, B26, B29, B30, B41	-	✓	-40°C to +70°C	PCIE
RFP	Australia New Zealand Latin America Taiwan	850, 900, 1800 1900	850, 900, 1900, 2100	B1, B2, B3, B4, B5, B7, B8 B28, B40	4	✓	-40°C to +70°C	PCIE
RFQ*	Mexico, USA Canada	-	850, 1900	B1, B2, B4, B5, B12, B13	4	✓	-40°C to +70°C	PCIE
RFR	EMEA, Korea Thailand Indonesia	900, 1800	850, 900, 2100	B1, B3, B5, B7, B8, B20, B38 B40, B41	4	✓	-40°C to +70°C	PCIE
RFX	Australia	-	B1, B5	B1, B3, B5, B7, B28	4	✓	-40°C to +70°C	PCIE
R1	EMEA, Korea Thailand	900, 1800	850, 900, 2100	B1, B3, B5, B7, B8, B20	1	-	-40°C to +70°C	PCIE
RFS	Europe	900, 1800	850, 900, 2100	B1, B3, B5, B7, B8, B20, B38 B40, B41	4	✓	-40°C to +70°C	PCIE
RFT	Asia, Pacific	900, 1800	800, 850, 900, 1700 2100	B1, B3, B5, B7, B8, B18, B19, B21 B28, B38, B39, B40,	6	✓	-40°C to +70°C	PCIE
RFU	EMEA, North America, Latin America, APAC, Japan, Australia	-	800, 850, 900, 2100 1900, 1800, 1700	B1, B2, B3, B5, B7, B8, B18, B19 B21, B25, B26, B38, B39, B40 B41, B66	6	-	-40°C to +70°C	PCIE
RFZ	Band specific	3(900), 8(1800)	B1, B8	B3, B7, B20, B31	-	-	-40°C to +70°C	PCIE
RFV	China	3(900), 8(1800)	B1, B8	B1, B3, B7, B8, B38, B40, B34 B39, B41	3	✓	-40°C to +70°C	PCIE
RFW	EMEA, Korea, Thailand, India	3(900), 8(1800)	B1, B8	B1, B3, B7, B8, B20, B28A, B38 B40, B41	3	✓	-40°C to +70°C	PCIE
*	* Not recommended for new projects							

RF Band Options Continued

Order Code	Region	2G Bands	3G Bands	LTE Bands	LTE Category	GPS	Operating Temp	Format
QFA	Europe, Australia, South America	B2, B3, B5, B8,	B1, B2, B5, B8	B1, B2, B3, B4 (AWS) B5, B7, B8 B40, 2300, B28(700 APAC)	4	✓	-40°C to +70°C	PCIE
QFB		B1, B2, B5, B8	-	B38, B39, B40, B41	3	-	-40°C to +70°C	PCIE
QFC	Europe, North & South America, Asia, Australia, Japan, Africa	-	B1, B2, B5, B6, B9 B19, B8, B4(AWS)	B1, B2, B3, B4 (AWS) B5, B7 B8, B9, B12(700ac), B13(700c) B18(800 lower), B19(800 upper) B20(800DD), B26(US 850 Ext), B28 (700 APAC), B29(US 700de Lower), B30(2300 WCS), B32(1500) B41(TDD 2500), B66(AWS-3) B46(TDD 5200)	12	✓	-40°C to +70°C	PCIE
QFD	Australia	-	B1, B5	B1, B3, B5, B7, B28	1	✓	-40°C to +70°C	PCIE
QFE	Mexico, USA, Canada	-	B2, B5	B1, B2, B4, B5, B12, B13	1	✓	-40°C to +70°C	PCIE
QFF	EMEA, Korea, Thailand	B3, B8	B1, B5, B8	B1, B3, B5, B7, B8, B20	1	✓	-40°C to +70°C	PCIE
QFG	Europe	-	B1, B3, B5, B8	B1, B3, B5, B7, B8, B20, B28, B32 B38, B40, B41	6	✓	-40°C to +70°C	PCIE
QFH	EMEA, Australia, Brazil	-	B1, B3, B5, B8	B1, B3, B5, B7, B8, B20, B28, B32 B38, B40, B41	6	✓	-40°C to +70°C	PCIE
QFI	-	-	B2, B4, B5	B2, B4, B12	1	-	-40°C to +70°C	LGA
QFJ	EMEA	900, 1800	B1, B8	B1, B3, B7, B8, B20, B28	1	✓	-40°C to +70°C	LGA
QFK	Asia	900, 1800	B1, B8	B1, B3, B5, B8, B40, B41	1	✓	-40°C to +70°C	LGA
QFL	USA	-	B2, B4, B5	B2, B4, B5, B12, B13, B14, B17, B66	4	✓	-40°C to +70°C	LGA
QFM	Europe	-	B1, B8, B5	B1, B3, B5(850), B7, B8, B20(800DD), B38(TDD 2600) B40(TDD 2300) B41(TDD 2500)	4	-	-40°C to +70°C	LGA
QFN	North America	-	-	B3, B7, B20, B126	4	-	-40°C to +70°C	PCIE
QFR	Global (AT&T, T-Mobile, Verizon)	B2, B3, B5, B8	B1, B2, B4, B5, B6, B8, B9	B1, B2, B3, B4, B5, B7, B8, B12, B13 B18, B19, B20, B25, B26, B28, B38 B39, B40, B41	4	✓	-40°C to +70°C	PCIE
QFS	Europe, North America China, Japan Africa, APAC	-	B1, B2, B8, B4, B5	B1, B2, B3, B4, B5, B7, B8, B11 B12, B13, B17, B18, B19, B20, B21 B26, B28, B29, B38, B39, B40, B41 B30, B66	9	-	-40°C to +70°C	PCIE
QFT	Global (AT&T, T-Mobile, Verizon)	850, 900, 1800 1900	-	B1, B2, B3, B4, B5, B8, B12, B13 B17, B18, B19, B20, B26, B28	M1,NB1	Opt	-40°C to +70°C	LGA
QFX	Europe, Australia	B5, B8, B3, B2	-	B1, B2, B3, B4, B5, B8, B12, B13 B18, B19 B20, B25, B26, B27, B28 B31, B66, B72, B85	CAT-M,NB2	✓	-40°C to +70°C	PCIE
QFZ	EMEA	900, 1800	B1, B8	B1, B3, B7, B8, B20, B28	4	-	-40°C to +70°C	PCIE
*	* Not recommended for new projects							

RF Band Options Continued

Order Code	Region	2G Bands	3G Bands	LTE Bands	5G	LTE Category	GPS	Operating Temp	Format
PFA	Global	-	-	B1,B2,B3,B4,B5,B7,B8 B12, B13, B14,B17, B18 B19, B20, B25, B26, B28 B29, B30, B32, B34, B38 B39, B40, B41, B42, B43 B46, B48, B66, B71	NSA: n41, n77, n78, n79 SA: n1, n2, n3, n5, n7 n8, n12, n20, n25, n28 n38, n40, n41, n48, n66 n71, n77, n78, n79	6		-20 to +60°C	M.2
PFC		-	-	B3, B7, B20, B31, B72	-	4		-20 to +60°C	PCIE
PFD	EMEA	900, 1800	B1, B8	B1, B3, B7, B8, B20	-	4	✓	-40°C to +85°C	LGA
PFE	North America	-	B2, B4, B5	B2, B4, B12, B2, B4, B5 B13	-	4	-	-40°C to +80°C	PCIE
PFF	Global	-	-	B28, B43, B87	-	4	-	-20 to +60°C	PCIE
PFG	USA	-	B2, B4, B5	B2, B4, B5, B12, B13, B14 B66, B71	-	4	✓	-40°C to +85°C	PCIE
PFH	US FirstNet	-	B2, B4, B5	B2, B4, B5, B12, B13, B14 B66, B71	-	4	✓	-40°C to +85°C	PCIE
PFI	India & China	900, 1800	B1, B8	B1, B3, B5, B8, B40, B41	-	4	✓	-40°C to +85°C	LGA
PFJ	Australia	-	B1, B5, B8	B1, B3, B5, B7, B8, B28	-	4	✓	-40°C to +85°C	LGA
PFK	Global	-	-	B1, B2, B3, B4, B5, B6, B7 B8, B9, B10, B11, B12, B13 B14, B17, B18, B19, B20 B21, B23, B25, B26, B27 B28, B30, B34, B38, B39 B40, B41, B42, B43, B46 B47, B48, B66, B71	-		✓	-40°C to +85°C	M.2
PFL	North America	-	B1, B5, B8	B2, B4, B5, B12, B13, B14 B17, B66	-	4	✓	-40°C to +85°C	PCIE
PFM	European Band 87	-	-	B3, B20, B87	-	4	-	-40°C to +85°C	PCIE
PFN	Europe (Germany, Austria)	-	-	B3, B7, B20, B72	-	4	-	-40°C to +85°C	PCIE
PFO	Global	-	B1, B2, B4, B5, B8, B19	B1, B2, B3, B4, B5, B6, B7 B8, B9, B10, B11, B12, B13 B14, B17, B18, B19 B20, B21, B23, B25, B26 B27, B28, B30, B34, B38 B39, B40, B41, B42, B43 B46, B47, B48, B66, B71	n1, n2, n3, n5, n7, n8 n12, n13, n14, n18, n20 n25, n26, n28, n29, n30 n38, n40, n41, n48, n66 n70, n71, n75, n76, n77 n78, n79	18, 19	✓	-40°C to +85°C	M.2