BAND CONVERSION TABLE: FOR SENTINEL-2, SENTINEL-3 AND LANDSAT-8

Wavelenght		SENTINEL-2-MSI Swath:100km;Revisit:5d.;Resolution:10-60m							LANDSAT-8-OLI Swath:185km;Revisit:16d. Resolution:15-60m (2013-05-30+)					Sentinel-3-OLCI Swath:1270km;Revisit:4d Resolution:300m (2016-01-16+)				*This whole table is under verification*
			Sentinel-2A (2015-06-23+)			Sentinel-2B (2017-03-07+)												
(nm)		BAND	Min.	Central Wave L.	Max.	Min.	Central W.L.	Max.	S. Res.	BAND	Min.	Central Wave L.	Max.	S. Res.	BAND	Min.	Central Wave L.	Max.	Purposes (S1/L8/S3):
400	Aerosol														B01	392.5	400.0	407.5	//Coastal aerosol, correction
	Aerosol														B02	407.5	412.5	417.5	//Yellow subs.,detrital pig. (turbidity)
	Aerosol	B01	432.2	442.7	453.2	431.7	442.2	452.7	60	B01	433.0	443.0	453.0	30	B03	437.5	442.5	447.5	Aerosol//Chlorophyll abs., vegetation
	Nat	B02	459.4	492.4	525.4	459.1	492.1	525.1	10	B02	450.0	482.5	515.0	30	B04	485.0	490.0	495.0	SoilxVeg.,water/Bathym./Chlorophyll MAX.
500	Nat														B05	505.0	510.0	515.0	//Chlorophyll, sedim., turbid., red tide
	Nat	B03	541.8	559.8	577.8	541.0	559.0	577.0	10	B03	525.0	562.5	600.0	30	B06	555.0	560.0	565.0	Turbidity,oil//Chlorophyll MIN.
	Nat									B08	500.0	590.0	680.0	15					L-8 Panchromatic //
600	Nat													30	B07	615.0	620.0	625.0	//Sediment loading
	Nat	B04	649.1	664.6	680.1	649.4	664.9	680.4	10	B04	630.0	655.0	680.0	30	B08	660.0	665.0	670.0	Soil,veg//2nd Chl.MAX,sedim.,yellow subs.
	RedEdge														B09	670.0	673.8	677.5	//Improved fluorescence,Surface Mix.Layer
	RedEdge														B10	677.5	681.3	685.0	//Chlorophyll fluorescence peak
700	RedEdge	B05	696.6	704.1	711.6	695.8	703.8	711.8	20						B11	703.8	708.8	713.8	Vegetation//Chl.fl.basel.
	RedEdge	B06	733.0	740.5	748.0	731.6	739.1	746.6	20						B12	750.0	753.8	757.5	Vegetation//O2 abs.,clouds,veg.
	RedEdge														B13	760.0	761.3	762.5	//O2 abs.,clouds,veg.;aerosol corr.
	RedEdge														B14	762.5	764.4	766.3	//Atmospheric correction
	RedEdge														B15	766.3	767.5	768.8	//Cloud top press.,fluore.over land
	RedEdge	B07	772.8	782.8	792.8	769.7	779.7	789.7	20						B16	771.3	778.8	786.3	Vegetation//Atmos.corr.
800	NIR	B08	779.8	832.8	885.8	779.9	832.9	885.9	10	B05	845.0	865.0	885.0	30	B17	855.0	865.0	875.0	Vegetation//Atmos.aeros.corr.,clouds
	NarrNIR	B8A	854.2	864.7	875.2	853.0	864.0	875.0	20						B18	880.0	885.0	890.0	Vegetation//Water vapour reference; SLSTR
900	SWIR	B09	935.1	945.1	955.1	932.7	943.2	953.7	60						B19	895.0	900.0	905.0	//Water vapour abs.,Veg.(max.reflect.)
	SWIR														B20	930.0	940.0	950.0	//Water vapour abs.,Atmos.aeros.corr.
1000	SWIR														B21	1000.0	1020.0	1040.0	//Atmos.aeros.corr.
1300	SWIR	B10	1358.0	1373.5	1389.0	1361.9	1376.9	1391.9	60	B09	1360.0	1375.0	1390.0	30					Cirrus cloud detection//
1500	SWIR	B11	1568.2	1613.7	1659.2	1563.4	1610.4	1657.4	20	B06	1560.0	1610.0	1660.0	30					Snow/ice/cloud discrim.;moist.soil-veg.//
2000	SWIR	B12	2114.9	2202.4	2289.9	2093.2	2185.7	2278.2	20	B07	2100.0	2200.0	2300.0	60					Snow/ice/cloud discrim.;moist.soil-veg.//
										B10	TIRS1			100					/Thermal map, soil moist/
										B11	TIRS2			100					/Improved thermal map/

Examples of indices conversion:

NDVI	(B08-B04)/(B08+B04)	(B05-B04)/(B05+B04)	(B17-B08)/(B17+B08)
NDWI2	(B03-B08)/(B03+B08)	(B03-B05)/(B03+B05)	(B06-B17)/(B06+B17)

Same can be done for every band composites

Sources:

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