

**Department of Electrical Engineering  
Indian Institute of Technology, Kanpur**

Enquiry No.: EE/KVS/24SEPT2015/2

Opening Date: 24/09/2015  
Closing Date: 08/10/2015

**Sub: Purchase of High Frequency Components and FlexibleCables**

We are looking to procurehigh frequencycomponents and flexible coaxial cables.

List of components with their specifications-

1) Flexible Coaxial Cable

- a) Frequency Range: DC to 18GHz
- b) Length:36 inch
- c) Insertion Loss:  
DC -6GHz: less than 1.5dB(typ.)  
6-18GHz:lessthan 2.5dB(typ.)
- d) Return Loss:  
DC -6GHz:more than 30dB(typ.)  
6-18GHz:more than 20dB(typ.)
- e) Connector type: SMA
- f) Quantity:10No

2) Flexible Coaxial Cable

- a) Frequency Range: DC to 18GHz
- b) Length:12 inch
- c) Insertion Loss:  
DC -6GHz:less than 1.5dB(typ.)  
6-18GHz:less than 2.5dB(typ.)
- d) Return Loss:  
DC -6GHz:more than 30dB(typ.)  
6-18GHz:more than 20dB(typ.)
- e) Connector type:SMA
- f) Quantity:10No

3) Frequency Mixer

- a) Frequency Range: 800MHz-2.4GHz
- b) Conversion loss:less than 8dB(typ.)
- c) LO/RF isolation: more than 20 dB (typ.)
- d) RF Power: 50mW(typ.)
- e) LO Power:7dBm(typ.)
- f) Connector Type:SMA
- g) Quantity:2No

#### 4) Frequency Mixer

- a) Frequency Range:2GHz-6GHz
- b) Conversion loss:less than 8dB(typ.)
- c) LO/RF isolation: more than 20 dB (typ.)
- d) RF Power: 50mW(typ.)
- e) LO Power:7dBm(typ.)
- f) Connector Type:SMA
- g) Quantity:2No

#### 5) Band Pass Filter

- a) Center Frequency: 1.8GHz
- b) Bandwidth:100MHz
- c) Insertion Loss(In Band): less than 3dB(typ.)  
Insertion Loss(Out of Band):more than 20dB(typ.)
- d) Return loss(In band): more than 10 dB(typ.)  
Return loss(out of band): less than 3dB(typ.)
- e) Connector Type:SMA
- f) Quantity:2No

#### 6) Band Pass Filter

- a) Center Frequency: 2GHz
- b) Band Width:300MHz
- c) Insertion Loss(In Band): less than 3dB(typ.)  
Insertion Loss(Out of Band):more than 20dB(typ.)
- d) Return loss(In band): more than 10 dB(typ.)  
Return loss(out of band): less than 3dB(typ.)
- e) Connector type-:SMA
- f) Quantity:2No

#### 7) Band Pass Filter

- a) Center Frequency: 2.4GHz
- b) Band Width:200MHz
- c) Insertion Loss(In Band): less than 3dB(typ.)  
Insertion Loss(Out of Band):more than 20dB(typ.)
- d) Return loss(In band): more than 10 dB(typ.)  
Return loss(out of band): less than 3dB(typ.)
- e) Connector type:SMA
- f) Quantity:2No

#### 8) Amplifier

- a) Frequency Range:800MHz-2.4GHz
- b) Gain: more than 15dB(typ.)
- c) 1dB compression Point:+10dBm(typ.)
- d) VSWR:less than 1.5(typ.)
- e) Connector type:SMA
- f) Quantity:2No

#### 9) Adapter

- a) Frequency Range: DC-6GHz
- b) Insertion Loss:  
DC -6GHz :less than 0.1dB(typ.)

- c) Return loss: more than 15dB(typ.)
- d) Connector type:N Female-N Female
- e) Quantity:6No

#### 10) Adapter

- a) Frequency: DC to 18GHz
- b) Connector type : SMA Male to SMA Female
- c) Impedance:50 ohm
- d) Style Right Angle(90 degree)
- e) Quantity:6No

#### 11) Circulator

- a) Frequency: 2.4GHz
- b) Isolation:more than 15dB(typ.)
- c) Insertion loss:less than 1.5dB(typ.)
- d) Power:more than 20dBm(typ.)
- e) Connector type:SMA
- f) Quantity:2No

#### 12) Power Combiner

- a) Frequency: 800MHz to 950MHz
- b) Isolation:more than 20dB(typ.)
- c) Insertion loss:less than 1.5dB(typ.)
- d) VSWR: 2dBm(typ.)
- e) Type :2way 180degree

#### 13) Power Combiner

- a) Frequency:1800MHz to 2400MHz
- b) Isolation:more than 15dB(typ.)
- c) Insertion loss:less than 0.5dB(typ.)
- d) VSWR: 1.5dBm(typ.)
- e) Type :2way 90degree

#### 14) Power Combiner

- a) Frequency:800MHz to 950MHz
- b) Isolation:more than 15dB(typ.)
- c) Insertion loss:less than 0.5dB(typ.)
- d) VSWR: 1.5dBm(typ.)
- e) Type :2way 90degree

#### Note:

1. All quotation in sealed envelope must reached undersigned on or before.
2. Quotation must be valid for 60 days.
3. Delivery Period should not be more than 6 weeks.
4. Send the complete details of the product.
5. IITKanpur is exempted from excise/custom duty.
6. The institute reserves the right to reject all or any tender enquiry without assigning any reason.

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