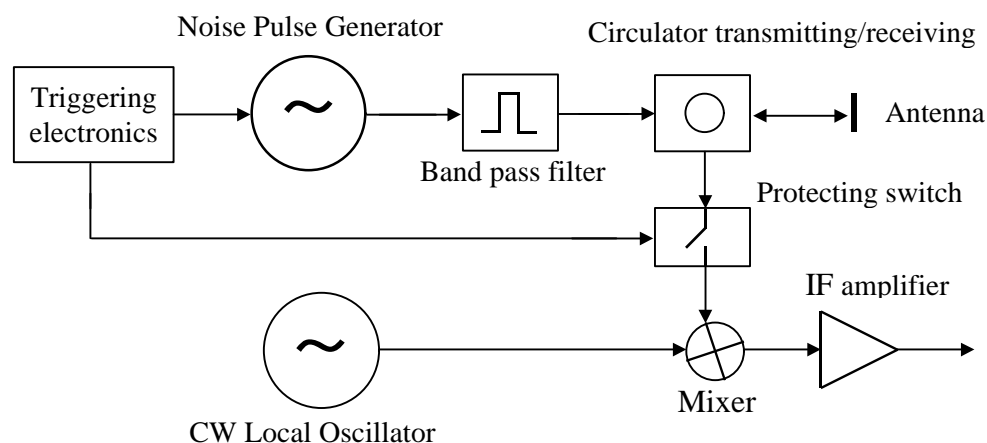


# 80-100 GHz Pulse Noise Radar Front-End

High power pulse noise source **PNS** series is used for the illumination of target. Noise nature of probing signal avoids the problem of interference. Image obtained by means of noise radar allows to recognize target better than the image obtained by means of coherent radar.

The entire radar front-end consists of the following elements:

1. Powerful pulse noise source;
2. Band pass filter (5 GHz typical);
3. Circulator of transmitting/receiving;
4. Switch for the receiver protection;
5. Balance mixer;
6. CW cavity stabilized IMPATT local oscillator;
7. IF amplifier;
8. Power supply and triggering electronics.



The device has a modular design fitted with waveguide flange.

## SPECIFICATIONS :

Frequency range, GHz	Bandwidth of launched radiation, GHz	Pulse duration, ns	Duty factor	On/Off ratio of the receiver protecting switch, dB	Power of output pulse, mW	ENR Flatness within launched bandwidth, dB	Receiver noise factor, dB
80÷100	5.0	50-100	>100	30	500	±1.5	7-9

- The values of parameters within the noted frequency ranges may be defined more exactly at the customer's options.
- Contact factory for other frequency ranges.