

System Operation	multi-sampling per bunch (damping of intra-bunch oscillations)
Bandwidth: low border (-1 dB)	15 kHz
Bandwidth: upper border (-1 dB)	32 MHz
Pick-Up signal implementations	<ul style="list-style-type: none"> <li>• 2 pick-ups</li> <li>• 1 pick-up</li> <li>• <math>n</math> turns combined</li> <li>• normalized / unnormalized</li> </ul>
Sampling Rate	<ul style="list-style-type: none"> <li>• fixed-<math>f_s</math>: 16 ns (62.5 Msps)</li> <li>or</li> <li>• <math>f_s = 240f_0</math>: 26.7 ns–15 ns (37.4 Msps–66 Msps)</li> </ul>
Total Signal Jitter	max. 1 ns
Low-Pass Filter	32 MHz, 50 dB
Notch Filter	50 dB at $(nf_0 \pm 0.05f_0)$
Kicker Power	kick per turn $\Delta\theta = 16 \mu\text{rad}$
BTF functionality	
Remotely Adjustable	<ul style="list-style-type: none"> <li>• lattice settings; variable along the cycle</li> <li>• kick phase (antidamping, reactive)</li> <li>• pick-up signal implementations</li> <li>• kicker gain; variable along the cycle <ul style="list-style-type: none"> <li>• low-pass filter</li> <li>• pick-up amplifier gain</li> <li>• fast switch</li> </ul> </li> </ul>

- Document of physical (beam dynamics) requirements for SIS100 completed.
- Draft technical specification, based on SIS18 TFS system available.
- Very similar requirements to TFS System of CERN PS.
- Therefore, in order to save time and effort for completing the technical specification, the subproject SIS100/SIS18 would have a great interest in technical consultancy by the CERN BE-RF dpt. and provision of the PS technical specification.
- Next steps:
  - Technical meeting on the SIS100 TFS system in Q1 2021. Exchange of requirements and technical information.
  - Completion of technical specification for SIS100 by GSI
  - Consideration of more detailed technical collaboration in the frame of engineering design.