



Hitachi	GE	Phillips	Siemens	Toshiba	Description
SE	SE	SE	SE	SE	Spin Echo - 180 RF pulse to refocus echo. Produces PD or T1 or T2 images.
IR	IR	IR	IR	IR	Inversion Recovery - 180 inverting pulse applied prior to conventional SE. Provides T1 contrast with additional contrast control provided by adjusting TI.
STIR	STIR	STIR	STIR	STIR	Short Tau Inversion Recovery - IR sequence with TI set to suppress fat.
FLAIR	FLAIR	FLAIR	FLAIR	FLAIR	Fluid Attenuated Inversion Recovery - IR sequence with TI set to suppress CSF. Rarely used with IR -almost always used with FIR due to scan time consideration.
Real-IR	--	Real IR	TrueIR	Real IR	Inversion recovery or FIR sequence using "real" reconstruction instead of magnitude. Expands T1 contrast range.
FSE	FSE	TSE (Turbo)	TSE, HASTE, SPACE	FastSE/FAS TASE	Fast Spin Echo - Multiple 180 RF pulses to rapidly fill K-Space, can be combined with half scan technique for even faster scans.
DE-FSE/FIR	FR-FSE	DRIVE	RESTORE	T2 Plus	Driven Equilibrium FSE - 180 & 90 RF pulse added to end of FSE echo train to restore longitudinal magnetization, use to increase T2 weighting.
FIR	FIR	IR TSE	IR TSE	FastIR	Fast Inversion Recovery - IR pulse precedes FSE sequence. Provides similar results to IR. Usually used to create either fat suppressed FIR-STIR or CSF suppressed FIR-FLAIR images.
primeFSE	--	--	--	--	Hitachi proprietary FSE technique enables direct TE entry and receiver bandwidth adjustment. Excellent for imaging in presence of prostheses.
GE	GRE	FFE	FLASH, TurboFLASH	FE/PFI	Gradient Echo - Gradient reversal refocuses echoes. Produces images that are PD, T1, and T2* weighted images depending on TR/TE and Flip Angle (FA).
SG	GRASS	FFE	FISP	FE/PFI	Steady State Acquisition Rewound Gradient Echo (SARGE™) Short TR and rewinder pulses to create a steady state signal. T2* weighted decrease scan time.
RSSG	SPGR	T1-FFE	T1-FISP	FE	RF-Spoiled SG – Uses variable phase shifted excitation pulse to eliminate magnetization build-up, resulting in T1 weighted images.
TRSG	SSFP	T2-FFE	PSIF	SSFP	Time Reversed SG - simultaneous SE & stimulated echo sampling for T2 weighting.
BASG	FIESTA	Balanced FFE	True FISP, MEDIC	True SSFP	Balanced SARGE - SG sequence with slice, phase, and frequency rewinder pulses. Images are mixed contrast T2/T1. High SNR with bright fluids.
PBSG	FIESTA-C	--	CISS	--	Phase Balanced SARGE – Balanced SARGE with alternating phase RF excitation to preserve image quality where fatty tissue is present.
EPI	EPI	EPI	EPI	EPI	Echo Planar Imaging - Echo train readout with series of gradient reversals. Single Shot (SS-EPI) and Multi Shot (MS-EPI) typically used for DWI.
DWI	DWI	DWI	DWI	DWI	Diffusion Weighted Imaging – Pulse sequence and processing tools to create images weighted by water molecule diffusion.
ADC Map	ADC	ADC	ADC	ADC	Apparent Diffusion Coefficient Map – Parametric map of relative water molecule diffusivity. ADC maps eliminate T2 shine through and anisotropy effects.
RADAR™	PROPELLER	Multi-Vane	BLADE	JET	RADial Acquisition Regime – K-space filling technique providing patient motion compensation and excellent image quality. Applicable to FSE, FIR, DWI, SE, BASG.
FLUTE™	SmartPrep	BolusTrak, MobiTrak	Care Bolus	VisualPrep	Fluoro Triggered MRA - 2D monitoring pulse used to observe bolus, fast switching to 3D when bolus is at area of interest.
TRAQ™	TRICKS	4D TRAK	TREAT, TWIST	Freeze Frame	Time Resolved MRA - Ultra fast 3D dynamic scan used in the observation of blood kinetics.
VASC™	Flow Prepped FIESTA	TRANSE	NATIVE	FBI, CIA	Veins and Arteries Sans Contrast - Non-contrast MR angiography technique for renal and peripheral MRA.
PEAKS™	Elliptic Centric	CENTRA	Elliptical scanning	DRKS	Central K-space filling techniques used to optimize arterial visualization.
PERRM	RSPE	PEAR	PACE	--	Phase Encode Reordering to Reduce Motion - Respiratory compensation technique.
SSP™	Ramped RF	TONE	TONE	ISCE	Sloped Slab Profile - Varying excitation tip angle technique equalizes saturation of flowing blood for 3D MRA.
MTC	MTC	MTC	MTC	SORS-STC	Magnetization Transfer Contrast - RF Pulse is used to saturate bound water protein more than free water. Produces increased lesion conspicuity.
DS	POMP	Multi-Slice	Turbo Multi-Slice	QuadScan	Dual Slice - Simultaneous excitation of multiple slices. Can be applied to a wide range of pulse sequences for increased anatomical coverage.
FatSep™	IDEAL	--	DIXON	WFS	Fat-water separation – uses phase sensitive acquisition and special reconstruction to produce fat only and water only images. Usable with SE, GE, RSSG, and FSE pulse sequences.
RAPID™	ASSET/ACT	SENSE	iPAT, mSENSE, GRAPPA	SPEEDER	Parallel Imaging technique applicable to RAPID compatible RF coils - reduces k-space coverage requirements to deliver reduced scan time, increased temporal resolution for dynamic scans, and other clinical benefits.
RAPID™ 3D	LAVA XV VIBRANT XV	--	iPAT extensions, iPAT?	--	Enables slice and/or phase acceleration for 3D acquisitions, useful for dynamic imaging
TIGRE™	VIBRANT (breast) FAME/LAVA (abd)	THRIVE	VIEWS (breast) VIBE (abd)	RADIANCE (breast) QUICK 3D (abd)	3D T1 Gradient Echo with RF fat saturation for Dynamic breast and abdomen.
WE	--	ProSet	Water Excitation	WET-PASTA	Water Excitation – Binomial pulse alternative to RF fat saturation. Used with 3D GE RSSG for dynamics, BASG for cartilage.
NATURAL™	PURE	CLEAR	Prescan Normalize	--	Multi-channel RF coil sensitivity normalization.

Competitors' acronyms contained in this document are based on interpretation of available data at the time this material was prepared and may require independent verification. \*Not all features are available on all Hitachi MR Imagers.