Hitachi	GE	Phillips	Siemens	Toshiba	*Not all features are available on all Hitachi MR Imagers Competitors' acronyms contained in this document are based on interpretation of available data at the time this material was prepared and may require independent varification
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 <sup>TM</sup> ) 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 diffusitivity. 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	TRANCE	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	Multii-Slice	Turbo Multii-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 <sup>™</sup> 3D	LAVA XV VIBRANT XV		iPAT extensions, iPAT <sup>2</sup>		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)	<sup>9</sup> 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.