

NAG Library Chapter Contents

F07 – Linear Equations (LAPACK)

F07 Chapter Introduction – a description of the Chapter and an overview of the algorithms available

Routine Name	Mark of Introduction	Purpose
F07AAF (DGESV)	21	DGESV nag_lapack_dgesv Computes the solution to a real system of linear equations
F07ABF (DGESVX)	21	DGESVX nag_lapack_dgesvx Uses the LU factorization to compute the solution, error-bound and condition estimate for a real system of linear equations
F07ACF (DSGESV)	22	DSGESV nag_lapack_dsgesv Computes the solution to a real system of linear equations using mixed precision arithmetic
F07ADF (DGETRF)	15	DGETRF nag_lapack_dgetrf LU factorization of real m by n matrix
F07AEF (DGETRS)	15	DGETRS nag_lapack_dgetrs Solution of real system of linear equations, multiple right-hand sides, matrix already factorized by F07ADF (DGETRF)
F07AFF (DGEEQU)	21	DGEEQU nag_lapack_dgeequ Computes row and column scalings intended to equilibrate a general real matrix and reduce its condition number
F07AGF (DGECON)	15	DGECON nag_lapack_dgecon Estimate condition number of real matrix, matrix already factorized by F07ADF (DGETRF)
F07AHF (DGERFS)	15	DGERFS nag_lapack_dgerfs Refined solution with error bounds of real system of linear equations, multiple right-hand sides
F07AJF (DGETRI)	15	DGETRI nag_lapack_dgetri Inverse of real matrix, matrix already factorized by F07ADF (DGETRF)
F07ANF (ZGESV)	21	ZGESV nag_lapack_zgesv Computes the solution to a complex system of linear equations
F07APF (ZGESVX)	21	ZGESVX nag_lapack_zgesvx Uses the LU factorization to compute the solution, error-bound and condition estimate for a complex system of linear equations
F07AQF (ZCGESV)	22	ZCGESV nag_lapack_zcgesv Computes the solution to a complex system of linear equations using mixed precision arithmetic

F07ARF (ZGETRF)	15	ZGETRF nagf_lapack_zgetrf <i>LU</i> factorization of complex m by n matrix
F07ASF (ZGETRS)	15	ZGETRS nagf_lapack_zgetrs Solution of complex system of linear equations, multiple right-hand sides, matrix already factorized by F07ARF (ZGETRF)
F07ATF (ZGEEQU)	21	ZGEEQU nagf_lapack_zgeequ Computes row and column scalings intended to equilibrate a general complex matrix and reduce its condition number
F07AUF (ZGECON)	15	ZGECON nagf_lapack_zgecon Estimate condition number of complex matrix, matrix already factorized by F07ARF (ZGETRF)
F07AVF (ZGERFS)	15	ZGERFS nagf_lapack_zgerfs Refined solution with error bounds of complex system of linear equations, multiple right-hand sides
F07AWF (ZGETRI)	15	ZGETRI nagf_lapack_zgetri Inverse of complex matrix, matrix already factorized by F07ARF (ZGETRF)
F07BAF (DGBSV)	21	DGBSV nagf_lapack_dgbsv Computes the solution to a real banded system of linear equations
F07BBF (DGBSVX)	21	DGBSVX nagf_lapack_dgbsvx Uses the <i>LU</i> factorization to compute the solution, error-bound and condition estimate for a real banded system of linear equations
F07BDF (DGBTRF)	15	DGBTRF nagf_lapack_dgbtrf <i>LU</i> factorization of real m by n band matrix
F07BEF (DGBTRS)	15	DGBTRS nagf_lapack_dgbtrs Solution of real band system of linear equations, multiple right-hand sides, matrix already factorized by F07BDF (DGBTRF)
F07BFF (DGBEQU)	21	DGBEQU nagf_lapack_dgbequ Computes row and column scalings intended to equilibrate a real banded matrix and reduce its condition number
F07BGF (DGBCON)	15	DGBCON nagf_lapack_dgbcon Estimate condition number of real band matrix, matrix already factorized by F07BDF (DGBTRF)
F07BHF (DGBRFS)	15	DGBRFS nagf_lapack_dgbrfs Refined solution with error bounds of real band system of linear equations, multiple right-hand sides
F07BNF (ZGBSV)	21	ZGBSV nagf_lapack_zgbsv Computes the solution to a complex banded system of linear equations

F07BPF (ZGBSVX)	21	<p>ZGBSVX nagf_lapack_zgbsvx Uses the LU factorization to compute the solution, error-bound and condition estimate for a complex banded system of linear equations</p>
F07BRF (ZGBTRF)	15	<p>ZGBTRF nagf_lapack_zgbtrf LU factorization of complex m by n band matrix</p>
F07BSF (ZGBTRS)	15	<p>ZGBTRS nagf_lapack_zgbtrs Solution of complex band system of linear equations, multiple right-hand sides, matrix already factorized by F07BRF (ZGBTRF)</p>
F07BTF (ZGBEQU)	21	<p>ZGBEQU nagf_lapack_zgbequ Computes row and column scalings intended to equilibrate a complex banded matrix and reduce its condition number</p>
F07BUF (ZGBCON)	15	<p>ZGBCON nagf_lapack_zgbcon Estimate condition number of complex band matrix, matrix already factorized by F07BRF (ZGBTRF)</p>
F07BVF (ZGBRFS)	15	<p>ZGBRFS nagf_lapack_zgbrfs Refined solution with error bounds of complex band system of linear equations, multiple right-hand sides</p>
F07CAF (DGTSV)	21	<p>DGTSV nagf_lapack_dgtsv Computes the solution to a real tridiagonal system of linear equations</p>
F07CBF (DGTSVX)	21	<p>DGTSVX nagf_lapack_dgtsvx Uses the LU factorization to compute the solution, error-bound and condition estimate for a real tridiagonal system of linear equations</p>
F07CDF (DGTTRF)	21	<p>DGTTRF nagf_lapack_dgttrf LU factorization of real tridiagonal matrix</p>
F07CEF (DGTTRS)	21	<p>DGTTRS nagf_lapack_dgttrs Solves a real tridiagonal system of linear equations using the LU factorization computed by F07CDF (DGTTRF)</p>
F07CGF (DGTCON)	21	<p>DGTCON nagf_lapack_dgtcon Estimates the reciprocal of the condition number of a real tridiagonal matrix using the LU factorization computed by F07CDF (DGTTRF)</p>
F07CHF (DGTRFS)	21	<p>DGTRFS nagf_lapack_dgtrfs Refined solution with error bounds of real tridiagonal system of linear equations, multiple right-hand sides</p>
F07CNF (ZGTSV)	21	<p>ZGTSV nagf_lapack_zgtsv Computes the solution to a complex tridiagonal system of linear equations</p>
F07CPF (ZGTSVX)	21	<p>ZGTSVX nagf_lapack_zgtsvx Uses the LU factorization to compute the solution, error-bound and condition estimate for a complex tridiagonal system of linear equations</p>

F07CRF (ZGTTRF)	21	ZGTTRF nagf_lapack_zgttrf LU factorization of complex tridiagonal matrix
F07CSF (ZGTTRS)	21	ZGTTRS nagf_lapack_zgttrs Solves a complex tridiagonal system of linear equations using the LU factorization computed by F07CDF (DGTTRF)
F07CUF (ZGTCON)	21	ZGTCON nagf_lapack_zgtcon Estimates the reciprocal of the condition number of a complex tridiagonal matrix using the LU factorization computed by F07CDF (DGTTRF)
F07CVF (ZGTRFS)	21	ZGTRFS nagf_lapack_zgtrfs Refined solution with error bounds of complex tridiagonal system of linear equations, multiple right-hand sides
F07FAF (DPOSV)	21	DPOSV nagf_lapack_dposv Computes the solution to a real symmetric positive definite system of linear equations
F07FBF (DPOSVX)	21	DPOSVX nagf_lapack_dposvx Uses the Cholesky factorization to compute the solution, error-bound and condition estimate for a real symmetric positive definite system of linear equations
F07FCF (DSPOSV)	23	DSPOSV nagf_lapack_dsposv Computes the solution to a real symmetric positive definite system of linear equations using mixed precision arithmetic
F07FDF (DPOTRF)	15	DPOTRF nagf_lapack_dpotrf Cholesky factorization of real symmetric positive definite matrix
F07FEF (DPOTRS)	15	DPOTRS nagf_lapack_dpotrs Solution of real symmetric positive definite system of linear equations, multiple right-hand sides, matrix already factorized by F07FDF (DPOTRF)
F07FFF (DPOEQU)	21	DPOEQU nagf_lapack_dpoequ Computes row and column scalings intended to equilibrate a real symmetric positive definite matrix and reduce its condition number
F07FGF (DPOCON)	15	DPOCON nagf_lapack_dpocon Estimate condition number of real symmetric positive definite matrix, matrix already factorized by F07FDF (DPOTRF)
F07FHF (DPORFS)	15	DPORFS nagf_lapack_dporfs Refined solution with error bounds of real symmetric positive definite system of linear equations, multiple right-hand sides
F07FJF (DPOTRI)	15	DPOTRI nagf_lapack_dpotri Inverse of real symmetric positive definite matrix, matrix already factorized by F07FDF (DPOTRF)
F07FNF (ZPOSV)	21	ZPOSV nagf_lapack_zposv Computes the solution to a complex Hermitian positive definite system of linear equations

F07FPF (ZPOSVX)	21	<p>ZPOSVX nagf_lapack_zposvx Uses the Cholesky factorization to compute the solution, error-bound and condition estimate for a complex Hermitian positive definite system of linear equations</p>
F07FQF (ZCPOSV)	23	<p>ZCPOSV nagf_lapack_zposv Computes the solution to a complex Hermitian positive definite system of linear equations using mixed precision arithmetic</p>
F07FRF (ZPOTRF)	15	<p>ZPOTRF nagf_lapack_zpotrf Cholesky factorization of complex Hermitian positive definite matrix</p>
F07FSF (ZPOTRS)	15	<p>ZPOTRS nagf_lapack_zpotrs Solution of complex Hermitian positive definite system of linear equations, multiple right-hand sides, matrix already factorized by F07FRF (ZPOTRF)</p>
F07FTF (ZPOEQU)	21	<p>ZPOEQU nagf_lapack_zpoequ Computes row and column scalings intended to equilibrate a complex Hermitian positive definite matrix and reduce its condition number</p>
F07FUF (ZPOCON)	15	<p>ZPOCON nagf_lapack_zpocon Estimate condition number of complex Hermitian positive definite matrix, matrix already factorized by F07FRF (ZPOTRF)</p>
F07FVF (ZPORFS)	15	<p>ZPORFS nagf_lapack_zporfs Refined solution with error bounds of complex Hermitian positive definite system of linear equations, multiple right-hand sides</p>
F07FWF (ZPOTRI)	15	<p>ZPOTRI nagf_lapack_zpotri Inverse of complex Hermitian positive definite matrix, matrix already factorized by F07FRF (ZPOTRF)</p>
F07GAF (DPPSV)	21	<p>DPPSV nagf_lapack_dppsv Computes the solution to a real symmetric positive definite system of linear equations, packed storage</p>
F07GBF (DPPSVX)	21	<p>DPPSVX nagf_lapack_dppsvx Uses the Cholesky factorization to compute the solution, error-bound and condition estimate for a real symmetric positive definite system of linear equations, packed storage</p>
F07GDF (DPPTRF)	15	<p>DPPTRF nagf_lapack_dpptrf Cholesky factorization of real symmetric positive definite matrix, packed storage</p>
F07GEF (DPPTRS)	15	<p>DPPTRS nagf_lapack_dpptrs Solution of real symmetric positive definite system of linear equations, multiple right-hand sides, matrix already factorized by F07GDF (DPPTRF), packed storage</p>

F07GFF (DPPEQU)	21	<p>DPPEQU nagf_lapack_dppequ Computes row and column scalings intended to equilibrate a real symmetric positive definite matrix and reduce its condition number, packed storage</p>
F07GGF (DPPCON)	15	<p>DPPCON nagf_lapack_dppcon Estimate condition number of real symmetric positive definite matrix, matrix already factorized by F07GDF (DPPTRF), packed storage</p>
F07GHF (DPPRFS)	15	<p>DPPRFS nagf_lapack_dpprfs Refined solution with error bounds of real symmetric positive definite system of linear equations, multiple right-hand sides, packed storage</p>
F07GJF (DPPTRI)	15	<p>DPPTRI nagf_lapack_dpptri Inverse of real symmetric positive definite matrix, matrix already factorized by F07GDF (DPPTRF), packed storage</p>
F07GNF (ZPPSV)	21	<p>ZPPSV nagf_lapack_zppsv Computes the solution to a complex Hermitian positive definite system of linear equations, packed storage</p>
F07GPF (ZPPSVX)	21	<p>ZPPSVX nagf_lapack_zppsvx Uses the Cholesky factorization to compute the solution, error-bound and condition estimate for a complex Hermitian positive definite system of linear equations, packed storage</p>
F07GRF (ZPPTRF)	15	<p>ZPPTRF nagf_lapack_zpptrf Cholesky factorization of complex Hermitian positive definite matrix, packed storage</p>
F07GSF (ZPPTRS)	15	<p>ZPPTRS nagf_lapack_zpptrs Solution of complex Hermitian positive definite system of linear equations, multiple right-hand sides, matrix already factorized by F07GRF (ZPPTRF), packed storage</p>
F07GTF (ZPPEQU)	21	<p>ZPPEQU nagf_lapack_zppequ Computes row and column scalings intended to equilibrate a complex Hermitian positive definite matrix and reduce its condition number, packed storage</p>
F07GUF (ZPPCON)	15	<p>ZPPCON nagf_lapack_zppcon Estimate condition number of complex Hermitian positive definite matrix, matrix already factorized by F07GRF (ZPPTRF), packed storage</p>
F07GVF (ZPPRFS)	15	<p>ZPPRFS nagf_lapack_zpprfs Refined solution with error bounds of complex Hermitian positive definite system of linear equations, multiple right-hand sides, packed storage</p>
F07GWF (ZPPTRI)	15	<p>ZPPTRI nagf_lapack_zpptri Inverse of complex Hermitian positive definite matrix, matrix already factorized by F07GRF (ZPPTRF), packed storage</p>

F07HAF (DPBSV)	21	<p>DPBSV <code>nagf_lapack_dpbsv</code> Computes the solution to a real symmetric positive definite banded system of linear equations</p>
F07HBF (DPBSVX)	21	<p>DPBSVX <code>nagf_lapack_dpbsvx</code> Uses the Cholesky factorization to compute the solution, error-bound and condition estimate for a real symmetric positive definite banded system of linear equations</p>
F07HDF (DPBTRF)	15	<p>DPBTRF <code>nagf_lapack_dpbtrf</code> Cholesky factorization of real symmetric positive definite band matrix</p>
F07HEF (DPBTRS)	15	<p>DPBTRS <code>nagf_lapack_dpbtrs</code> Solution of real symmetric positive definite band system of linear equations, multiple right-hand sides, matrix already factorized by F07HDF (DPBTRF)</p>
F07HFF (DPBEQU)	21	<p>DPBEQU <code>nagf_lapack_dpbequ</code> Computes row and column scalings intended to equilibrate a real symmetric positive definite banded matrix and reduce its condition number</p>
F07HGF (DPBCON)	15	<p>DPBCON <code>nagf_lapack_dpbcon</code> Estimate condition number of real symmetric positive definite band matrix, matrix already factorized by F07HDF (DPBTRF)</p>
F07HHF (DPBRFS)	15	<p>DPBRFS <code>nagf_lapack_dpbrfs</code> Refined solution with error bounds of real symmetric positive definite band system of linear equations, multiple right-hand sides</p>
F07HNF (ZPBSV)	21	<p>ZPBSV <code>nagf_lapack_zpbsv</code> Computes the solution to a complex Hermitian positive definite banded system of linear equations</p>
F07HPF (ZPBSVX)	21	<p>ZPBSVX <code>nagf_lapack_zpbsvx</code> Uses the Cholesky factorization to compute the solution, error-bound and condition estimate for a complex Hermitian positive definite banded system of linear equations</p>
F07HRF (ZPBTRF)	15	<p>ZPBTRF <code>nagf_lapack_zpbtrf</code> Cholesky factorization of complex Hermitian positive definite band matrix</p>
F07HSF (ZPBTRS)	15	<p>ZPBTRS <code>nagf_lapack_zpbtrs</code> Solution of complex Hermitian positive definite band system of linear equations, multiple right-hand sides, matrix already factorized by F07HRF (ZPBTRF)</p>
F07HTF (ZPBEQU)	21	<p>ZPBEQU <code>nagf_lapack_zpbequ</code> Computes row and column scalings intended to equilibrate a complex Hermitian positive definite banded matrix and reduce its condition number</p>

F07HUF (ZPBCON)	15	<p>ZPBCON <code>nagf_lapack_zpbcon</code> Estimate condition number of complex Hermitian positive definite band matrix, matrix already factorized by F07HRF (ZPBTRF)</p>
F07HVF (ZPBRFS)	15	<p>ZPBRFS <code>nagf_lapack_zpbrfs</code> Refined solution with error bounds of complex Hermitian positive definite band system of linear equations, multiple right-hand sides</p>
F07JAF (DPTSV)	21	<p>DPTSV <code>nagf_lapack_dptsv</code> Computes the solution to a real symmetric positive definite tridiagonal system of linear equations</p>
F07JBF (DPTSVX)	21	<p>DPTSVX <code>nagf_lapack_dptsvx</code> Uses the LDL^T factorization to compute the solution, error-bound and condition estimate for a real symmetric positive definite tridiagonal system of linear equations</p>
F07JDF (DPTTRF)	21	<p>DPTTRF <code>nagf_lapack_dpttrf</code> Computes the LDL^T factorization of a real symmetric positive definite tridiagonal matrix</p>
F07JEF (DPTTRS)	21	<p>DPTTRS <code>nagf_lapack_dpttrs</code> Solves a real symmetric positive definite tridiagonal system using the LDL^T factorization computed by F07JDF (DPTTRF)</p>
F07JGF (DPTCON)	21	<p>DPTCON <code>nagf_lapack_dptcon</code> Computes the reciprocal of the condition number of a real symmetric positive definite tridiagonal system using the LDL^T factorization computed by F07JDF (DPTTRF)</p>
F07JHF (DPTRFS)	21	<p>DPTRFS <code>nagf_lapack_dptrfs</code> Refined solution with error bounds of real symmetric positive definite tridiagonal system of linear equations, multiple right-hand sides</p>
F07JNF (ZPTSV)	21	<p>ZPTSV <code>nagf_lapack_zptsv</code> Computes the solution to a complex Hermitian positive definite tridiagonal system of linear equations</p>
F07JPF (ZPTSVX)	21	<p>ZPTSVX <code>nagf_lapack_zptsvx</code> Uses the LDL^T factorization to compute the solution, error-bound and condition estimate for a complex Hermitian positive definite tridiagonal system of linear equations</p>
F07JRF (ZPTTRF)	21	<p>ZPTTRF <code>nagf_lapack_zpttrf</code> Computes the LDL^H factorization of a complex Hermitian positive definite tridiagonal matrix</p>
F07JSF (ZPTTRS)	21	<p>ZPTTRS <code>nagf_lapack_zpttrs</code> Solves a complex Hermitian positive definite tridiagonal system using the LDL^H factorization computed by F07JRF (ZPTTRF)</p>

F07JUF (ZPTCON)	21	ZPTCON nagf_lapack_zptcon Computes the reciprocal of the condition number of a complex Hermitian positive definite tridiagonal system using the LDL ^H factorization computed by F07JRF (ZPTTRF)
F07JVF (ZPTRFS)	21	ZPTRFS nagf_lapack_zptrfs Refined solution with error bounds of complex Hermitian positive definite tridiagonal system of linear equations, multiple right-hand sides
F07KDF (DPSTRF)	23	DPSTRF nagf_lapack_dpstrf Cholesky factorization, with complete pivoting, of a real, symmetric, positive semidefinite matrix
F07KRF (ZPSTRF)	23	ZPSTRF nagf_lapack_zpstrf Cholesky factorization of complex Hermitian positive semidefinite matrix
F07MAF (DSYSV)	21	DSYSV nagf_lapack_dsysv Computes the solution to a real symmetric system of linear equations
F07MBF (DSYSVX)	21	DSYSVX nagf_lapack_dsysvx Uses the diagonal pivoting factorization to compute the solution to a real symmetric system of linear equations
F07MDF (DSYTRF)	15	DSYTRF nagf_lapack_dsytrf Bunch–Kaufman factorization of real symmetric indefinite matrix
F07MEF (DSYTRS)	15	DSYTRS nagf_lapack_dsytrs Solution of real symmetric indefinite system of linear equations, multiple right-hand sides, matrix already factorized by F07MDF (DSYTRF)
F07MGF (DSYCON)	15	DSYCON nagf_lapack_dsycon Estimate condition number of real symmetric indefinite matrix, matrix already factorized by F07MDF (DSYTRF)
F07MHF (DSYRFS)	15	DSYRFS nagf_lapack_dsyarfs Refined solution with error bounds of real symmetric indefinite system of linear equations, multiple right-hand sides
F07MJF (DSYTRI)	15	DSYTRI nagf_lapack_dsytri Inverse of real symmetric indefinite matrix, matrix already factorized by F07MDF (DSYTRF)
F07MNF (ZHESV)	21	ZHESV nagf_lapack_zhesv Computes the solution to a complex Hermitian system of linear equations
F07MPF (ZHESVX)	21	ZHESVX nagf_lapack_zhesvx Uses the diagonal pivoting factorization to compute the solution to a complex Hermitian system of linear equations

F07MRF (ZHETRF)	15	ZHETRF nagf_lapack_zhetrf Bunch–Kaufman factorization of complex Hermitian indefinite matrix
F07MSF (ZHETRS)	15	ZHETRS nagf_lapack_zhetrs Solution of complex Hermitian indefinite system of linear equations, multiple right-hand sides, matrix already factorized by F07MRF (ZHETRF)
F07MUF (ZHECON)	15	ZHECON nagf_lapack_zhecon Estimate condition number of complex Hermitian indefinite matrix, matrix already factorized by F07MRF (ZHETRF)
F07MVF (ZHERFS)	15	ZHERFS nagf_lapack_zherfs Refined solution with error bounds of complex Hermitian indefinite system of linear equations, multiple right-hand sides
F07MWF (ZHETRI)	15	ZHETRI nagf_lapack_zhetri Inverse of complex Hermitian indefinite matrix, matrix already factorized by F07MRF (ZHETRF)
F07NNF (ZSYSV)	21	ZSYSV nagf_lapack_zsysv Computes the solution to a complex symmetric system of linear equations
F07NPF (ZSYSVX)	21	ZSYSVX nagf_lapack_zsysvx Uses the diagonal pivoting factorization to compute the solution to a complex symmetric system of linear equations
F07NRF (ZSYTRF)	15	ZSYTRF nagf_lapack_zsytrf Bunch–Kaufman factorization of complex symmetric matrix
F07NSF (ZSYTRS)	15	ZSYTRS nagf_lapack_zsytrs Solution of complex symmetric system of linear equations, multiple right-hand sides, matrix already factorized by F07NRF (ZSYTRF)
F07NUF (ZSYCON)	15	ZSYCON nagf_lapack_zsycon Estimate condition number of complex symmetric matrix, matrix already factorized by F07NRF (ZSYTRF)
F07NVF (ZSYRFS)	15	ZSYRFS nagf_lapack_zsyarfs Refined solution with error bounds of complex symmetric system of linear equations, multiple right-hand sides
F07NWF (ZSYTRI)	15	ZSYTRI nagf_lapack_zsytri Inverse of complex symmetric matrix, matrix already factorized by F07NRF (ZSYTRF)
F07PAF (DSPSV)	21	DSPSV nagf_lapack_dpsv Computes the solution to a real symmetric system of linear equations, packed storage
F07PBF (DSPSVX)	21	DSPSVX nagf_lapack_dpsvx Uses the diagonal pivoting factorization to compute the solution to a real symmetric system of linear equations, packed storage. Error bounds and a condition estimate are also computed.

F07PDF (DSPTRF)	15	DSPTRF nagf_lapack_dsptf Bunch–Kaufman factorization of real symmetric indefinite matrix, packed storage
F07PEF (DSPTRS)	15	DSPTRS nagf_lapack_dsptrs Solution of real symmetric indefinite system of linear equations, multiple right-hand sides, matrix already factorized by F07PDF (DSPTRF), packed storage
F07PGF (DSPCON)	15	DSPCON nagf_lapack_dspcon Estimate condition number of real symmetric indefinite matrix, matrix already factorized by F07PDF (DSPTRF), packed storage
F07PHF (DSPRFS)	15	DSPRFS nagf_lapack_dsprfs Refined solution with error bounds of real symmetric indefinite system of linear equations, multiple right-hand sides, packed storage
F07PJF (DSPTRI)	15	DSPTRI nagf_lapack_dsptri Inverse of real symmetric indefinite matrix, matrix already factorized by F07PDF (DSPTRF), packed storage
F07PNF (ZHPSV)	21	ZHPSV nagf_lapack_zhpsv Computes the solution to a complex Hermitian system of linear equations, packed storage
F07PPF (ZHPSVX)	21	ZHPSVX nagf_lapack_zhpsvx Uses the diagonal pivoting factorization to compute the solution to a complex, Hermitian, system of linear equations, error bounds and condition estimates. Packed storage
F07PRF (ZHPTRF)	15	ZHPTRF nagf_lapack_zhptrf Bunch–Kaufman factorization of complex Hermitian indefinite matrix, packed storage
F07PSF (ZHPTRS)	15	ZHPTRS nagf_lapack_zhptrs Solution of complex Hermitian indefinite system of linear equations, multiple right-hand sides, matrix already factorized by F07PRF (ZHPTRF), packed storage
F07PUF (ZHPCON)	15	ZHPCON nagf_lapack_zhpcon Estimate condition number of complex Hermitian indefinite matrix, matrix already factorized by F07PRF (ZHPTRF), packed storage
F07PVF (ZHPRFS)	15	ZHPRFS nagf_lapack_zhprfs Refined solution with error bounds of complex Hermitian indefinite system of linear equations, multiple right-hand sides, packed storage
F07PWF (ZHPTRI)	15	ZHPTRI nagf_lapack_zhptri Inverse of complex Hermitian indefinite matrix, matrix already factorized by F07PRF (ZHPTRF), packed storage
F07QNF (ZSPSV)	21	ZSPSV nagf_lapack_zspsv Computes the solution to a complex symmetric system of linear equations, packed storage

F07QPF (ZSPSVX)	21	<p>ZSPSVX nagf_lapack_zspsvx Uses the diagonal pivoting factorization to compute the solution to a complex, symmetric, system of linear equations, error bounds and condition estimates. Packed storage</p>
F07QRF (ZSPTRF)	15	<p>ZSPTRF nagf_lapack_zsptrf Bunch–Kaufman factorization of complex symmetric matrix, packed storage</p>
F07QSF (ZSPTRS)	15	<p>ZSPTRS nagf_lapack_zsprts Solution of complex symmetric system of linear equations, multiple right-hand sides, matrix already factorized by F07QRF (ZSPTRF), packed storage</p>
F07QUF (ZSPCON)	15	<p>ZSPCON nagf_lapack_zspcon Estimate condition number of complex symmetric matrix, matrix already factorized by F07QRF (ZSPTRF), packed storage</p>
F07QVF (ZSPRFS)	15	<p>ZSPRFS nagf_lapack_zsprfs Refined solution with error bounds of complex symmetric system of linear equations, multiple right-hand sides, packed storage</p>
F07QWF (ZSPTRI)	15	<p>ZSPTRI nagf_lapack_zsptri Inverse of complex symmetric matrix, matrix already factorized by F07QRF (ZSPTRF), packed storage</p>
F07TEF (DTRTRS)	15	<p>DTRTRS nagf_lapack_dtrtrs Solution of real triangular system of linear equations, multiple right-hand sides</p>
F07TGF (DTRCON)	15	<p>DTRCON nagf_lapack_dtrcon Estimate condition number of real triangular matrix</p>
F07THF (DTRRFS)	15	<p>DTRRFS nagf_lapack_dtrrfs Error bounds for solution of real triangular system of linear equations, multiple right-hand sides</p>
F07TJF (DTRTRI)	15	<p>DTRTRI nagf_lapack_dtrtri Inverse of real triangular matrix</p>
F07TSF (ZTRTRS)	15	<p>ZTRTRS nagf_lapack_ztrtrs Solution of complex triangular system of linear equations, multiple right-hand sides</p>
F07TUF (ZTRCON)	15	<p>ZTRCON nagf_lapack_ztrcon Estimate condition number of complex triangular matrix</p>
F07TVF (ZTRRFS)	15	<p>ZTRRFS nagf_lapack_ztrrfs Error bounds for solution of complex triangular system of linear equations, multiple right-hand sides</p>
F07TWF (ZTRTRI)	15	<p>ZTRTRI nagf_lapack_ztrtri Inverse of complex triangular matrix</p>

F07UEF (DTPTRS)	15	DTPTRS nagf_lapack_dtptrs Solution of real triangular system of linear equations, multiple right-hand sides, packed storage
F07UGF (DTPCON)	15	DTPCON nagf_lapack_dtpcon Estimate condition number of real triangular matrix, packed storage
F07UHF (DTPRFS)	15	DTPRFS nagf_lapack_dtparfs Error bounds for solution of real triangular system of linear equations, multiple right-hand sides, packed storage
F07UJF (DTPTRI)	15	DTPTRI nagf_lapack_dtptri Inverse of real triangular matrix, packed storage
F07USF (ZTPTRS)	15	ZTPTRS nagf_lapack_ztptrs Solution of complex triangular system of linear equations, multiple right-hand sides, packed storage
F07UUF (ZTPCON)	15	ZTPCON nagf_lapack_ztpcon Estimate condition number of complex triangular matrix, packed storage
F07UVF (ZTPRFS)	15	ZTPRFS nagf_lapack_ztparfs Error bounds for solution of complex triangular system of linear equations, multiple right-hand sides, packed storage
F07UWF (ZTPTRI)	15	ZTPTRI nagf_lapack_ztptri Inverse of complex triangular matrix, packed storage
F07VEF (DTBTRS)	15	DTBTRS nagf_lapack_dtbtrs Solution of real band triangular system of linear equations, multiple right-hand sides
F07VGF (DTBCON)	15	DTBCON nagf_lapack_dtbcon Estimate condition number of real band triangular matrix
F07VHF (DTBRFS)	15	DTBRFS nagf_lapack_dtbarfs Error bounds for solution of real band triangular system of linear equations, multiple right-hand sides
F07VSF (ZTBTRS)	15	ZTBTRS nagf_lapack_ztbtrs Solution of complex band triangular system of linear equations, multiple right-hand sides
F07VUF (ZTBCON)	15	ZTBCON nagf_lapack_ztbcon Estimate condition number of complex band triangular matrix
F07VVF (ZTBRFS)	15	ZTBRFS nagf_lapack_ztbarfs Error bounds for solution of complex band triangular system of linear equations, multiple right-hand sides
F07WDF (DPFTRF)	23	DPFTRF nagf_lapack_dpfrf Cholesky factorization of real symmetric positive definite matrix, Rectangular Full Packed format

F07WEF (DPFTRS)	23	DPFTRS nagf_lapack_dpftsr Solution of real symmetric positive definite system of linear equations, multiple right-hand sides, coefficient matrix already factorized by F07WDF (DPFTRF), Rectangular Full Packed format
F07WJF (DPFTRI)	23	DPFTRI nagf_lapack_dpfttri Inverse of real symmetric positive definite matrix, matrix already factorized by F07WDF (DPFTRF), Rectangular Full Packed format
F07WKF (DTFTRI)	23	DTFTRI nagf_lapack_dtftri Inverse of real triangular matrix, Rectangular Full Packed format
F07WRF (ZPFTRF)	23	ZPFTRF nagf_lapack_zpftrf Cholesky factorization of complex Hermitian positive definite matrix, Rectangular Full Packed format
F07WSF (ZPFTRS)	23	ZPFTRS nagf_lapack_zpftrs Solution of complex Hermitian positive definite system of linear equations, multiple right-hand sides, coefficient matrix already factorized by F07WRF (ZPFTRF), Rectangular Full Packed format
F07WWF (ZPFTRI)	23	ZPFTRI nagf_lapack_zpftri Inverse of complex Hermitian positive definite matrix, matrix already factorized by F07WRF (ZPFTRF), Rectangular Full Packed format
F07WXF (ZTFTRI)	23	ZTFTRI nagf_lapack_ztftri Inverse of complex triangular matrix, Rectangular Full Packed format
