Columnwise and inverted relatedness used:
(1)
1. the summation of inverted relatedness in each column is 1 and they are directly multiplied with group gradients

	Fashion_mnist	R_mnist	P_mnist	Not_mnist
The experiment	56.10			
Old ModGEM	58.47			

Note that I stop continuing the experiment considering the accuracy for fashion_mnist in the experiment is even worse than that with GEM (56.86)

(2)
1. the summation of inverted relatedness in each column is 1 and they are multiplied with group gradients
2. you know the total number of parameters p, except for individual groups, there are many remaining. For the remaining part, the weight for them is 1/(t-1) just like what they get from AGEM
3. the reconstructed gradients are summed up just like AGEM
4. the shape of summation of reconstructed gradients is (1, p) like AGEM

	Fashion_mnist	R_mnist	P_mnist	Not_mnist
The experiment	59.50	68.05	71.20	66.3
AGEM	59.8	70.33	70.36	68.21

(3)
1. the mean of inverted relatedness is moved to 1
2. considering the influence of inverted relatedness should not be too large, I set a threshold for it: [0.5, 1.5] (for inverted relatedness of which value is smaller than 0.5, it will be set to be 0.5)
3. you know the total number of parameters p, except for individual groups, there are many remaining. For the remaining part, the weight for them is 1 just like what they get from GEM
4. no summation afterwards, the final shape of reconstructed gradients is (t-1, p)

	Fashion_mnist	R_mnist	P_mnist	Not_mnist
The experiment	58.63	73.80	68.56	65.88
Old ModGEM	58.47	74.15	68.57	68.41